



United States  
Department of  
Agriculture



Animal and Plant  
Health Inspection  
Service



# FY 2007 Training Catalog

## Offered by:

- ❖ Professional Development Staff (PDS)
- ❖ Centers for Epidemiology and Animal Health (CEAH)
- ❖ National Veterinary Services Laboratories (NVSL)



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**United States  
Department of  
Agriculture**

**Animal and  
Plant Health  
Inspection Service**

**Veterinary  
Services**

**Professional  
Development  
Staff**

# Training Courses

**Provided by the  
Professional  
Development  
Staff**



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## **NOMINATION/APPLICATION PROCEDURES**

***(PROCEDURES PERTAIN TO ONLY THOSE COURSES THAT REQUIRE NOMINATIONS. CHECK COURSE DESCRIPTION TO DETERMINE ELIGIBILITY.)***

The nomination form is in the process of being integrated with AgLearn to streamline the nomination process. Until this is complete you will need to provide the following information as your nomination request:

- Name (include Dr., Mr., Mrs., Ms.)
- Affiliation
- Business mailing address
- Phone number
- Fax number
- Email address
- Supervisor name

Each APHIS field nominee must submit the above information through the Area Office to the Regional Training Coordinator by email. All other employees must route their nominations through their Regional Training Coordinator by email. **Please copy (CC) your supervisor in the email. By doing this, your Regional Training Coordinator will know you have supervisor approval to attend the course.** First priority is given to those individual(s) who are in absolute need of the training. More than one person may be placed in priority one status. The Regional Training Coordinators are:

**Heather Bredeson – *CEAH***

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(970) 494-7272

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(970) 494-7382

The Professional Development Staff cannot accept nominations directly unless they come through your Regional Training Coordinator. If you have not nominated a participant, or have vacant position(s) that will be filled, and want to reserve a space in the course, you may indicate “to be determined,” or, “TBD” in the email to your Training Coordinator. Director approval is required for the named nominations, as well as a commitment to fill or cancel reserved spaces.

All training-related correspondence (select, non-select, cancellation, etc.) will be sent directly to the participants by email with copies to the VSMT, Training Coordinators, and supervisors. Hard copies will no longer be issued. Requests for exceptions may be made to the VS Training Coordinators.

Questions regarding nomination procedures may be directed to Alan Huddleston at [Alan.R.Huddleston@aphis.usda.gov](mailto:Alan.R.Huddleston@aphis.usda.gov).

Our mailing address and phone number are as follows:

USDA, APHIS, VS, PDS  
4700 River Road, Unit 27  
Riverdale, MD 20737  
(301) 734-5750

### **COURSE DESCRIPTION**

Each course description gives the course title, dates, purpose, and in some cases, objectives, eligibility, location, and contact person.

The course dates do not include travel dates. Travel dates are normally the day before the start of the course and the afternoon and evening of, or the day after, the end of the course.

### **CANCELLATION AND SUBSTITUTION POLICY**

Based on each particular course, it is important that PDS be notified as soon as possible in the case of a substitution and/or withdrawal of a course participant(s). We will accept substitutions and cancellations up to 1 week before the start of the course. Any changes in the status of nominees or course logistics will be communicated immediately through the Training Coordinators.



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United States  
Department of  
Agriculture

Animal and  
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Inspection  
Service

Veterinary  
Services

Washington, DC  
20250

## VETERINARY SERVICES MEMORANDUM NO. 548.4

SUBJECT: Veterinary Services' (VS) Distance Learning (DL) Policy

TO: VS Management Team (VSMT)  
Directors, VS

### I. PURPOSE

Implementing the President's Management Agenda is a U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), mission priority. The President's Management Agenda includes expansion of electronic Government (eGovernment) to simplify and unify government-wide operations, including education. To support the Presidential eGovernment initiative for "etraining," VS is establishing a policy, through this memorandum, to endorse the application and use of various DL technologies for continuing education purposes. This policy includes maximizing the use of the Agriculture Learning (AgLearn) Service for administering and taking online courses. AgLearn is USDA's Department-wide system for managing training records and training activity, including online courses.

This memorandum provides a standard set of guidelines for VS' DL policy. These guidelines will ensure that VS' position on DL is consistent with both APHIS' and VS' missions, which recognize that continual learning and balancing professional, personal, and community responsibilities are critical to success.

### II. GENERAL

VS employees should be given adequate or appropriate opportunities to participate in continuing education programs, as well as to complete legislatively mandated courses, such as the USDA-sponsored Incident Command System 100 and 200 online courses. Through DL, VS employees can view and participate in lectures and online courses from various remote locations specifically set up to accommodate them (e.g., satellite seminars or videoconferences broadcast in training rooms or conference rooms). Accommodations can also be made on an individual basis (e.g., using work or personal computers to view CD-ROMs or net conferences).

### III. GUIDELINES

#### A. Definitions

##### 1. Distance Learning



*Safeguarding American Agriculture*

APHIS is an agency of USDA's Marketing and Regulatory Programs  
An Equal Opportunity Provider and Employer

Federal Relay Service  
(Voice/TTY/ASCII/Spanish)  
1-800-877-8339

DL allows VS employees to engage in learning opportunities from remote, non-central locations, such as their work site, thereby reducing or eliminating employee travel and time away from work, home, and family. DL includes correspondence courses, courses delivered by CD-ROM, and courses that are technology-dependent (e.g., Internet, intranet, audio- or video-conferencing, and web-based [online] courses). For the purposes of this policy, DL refers exclusively to distance learning events that are applicable and relevant to an employee's job function or career development path and that are consistent with VS' mission.

## 2. Mandatory Training

For the purposes of this Memorandum, mandatory training refers to learning events that employees are required to complete in compliance with USDA or APHIS policy or other legally enforceable requirement.

Mandatory training falls into two broad categories: non-technical or technical. Non-technical training is typically general in nature and not job specific. Examples of non-technical training include: civil rights training (a USDA policy); supervisory training (an Office of Personnel Management policy); and ethics training (a Federal policy). Technical training typically relates to specific employee job knowledge and/or skills. Examples of technical training include: Basic Epidemiology Training (a VS National Animal Health Policy and Programs requirement); and Export Certification Training (a VS National Center for Import and Export (NCIE) requirement).

## B. Eligibility Requirements

All VS employees, full and part time, are eligible to participate in DL events commensurate with their job function, certification requirements, legislative mandates, and learning contracts or equivalent. Accordingly, they should be provided reasonable opportunity to engage in DL events on the job, to the extent that participation in such events is practical, feasible, and consistent with mission priorities. When possible, employee participation in DL events should be permitted during regular work hours, particularly if the DL event is: (1) mandated by legislation through USDA, APHIS, or VS; (2) required to fulfill job qualification requirements (e.g., certification or re-certification of particular skills); and/or (3) authorized by the employee's supervisor.

## IV. RESPONSIBILITIES AND AUTHORITIES

VS managers and supervisors should ensure fair and equitable enforcement of VS DL policy.

#### A. VSMT

The VSMT establishes and enforces VS policy regarding the application and use of DL.

#### B. Supervisors

VS supervisors should provide their employees with reasonable access to DL education opportunities that support VS' mission to safeguard animal health and promote continuing education. In addition, supervisors should ensure that employees complete mandatory training as required. As previously noted, mandatory training can be non-technical or technical. As a general rule, non-technical training (e.g., civil rights training; supervisory training; ethics training) requires about 1-2 hours on average to complete. Due the nature of technical training, estimated time allowances vary widely, ranging from a few hours to 40 hours or more. As an example, the Basic Epidemiology Training Course requires at least 40 hours to complete, whereas the NCIE Export Certification courses require 6-10 hours to complete. For this reason, supervisors should pay close attention to the estimated time durations that are usually provided with training announcements.

Supervisors should be flexible when determining whether employees should be allowed to participate in DL events during regular work hours. In instances where the DL event is mandated by VS or higher authority, employees should be allowed to participate, with due compensation for the time spent in training in accordance with APHIS guidelines, as applicable.

#### C. Employees

VS employees are encouraged to seek opportunities for continuing their education through reasonable and achievable means and to notify their supervisor when such opportunities arise. With respect to DL, employees may be required to provide periodic reports of progress, as well as documentation certifying successful completion. In all cases, employees are expected to put forth their best effort to derive the maximum benefit from their DL experiences.

#### D. Information Technology Support (ITS) Services

Various ITS resources are available to provide technical support to VS employees in the application and use of computer-based, telecommunications, and other DL delivery technologies. Among these resources are the VS ITS group, which operates under the VS Chief Information Officer. VS employees should contact their local VS ITS customer service representative, when necessary, for support in such areas as IT security, user account and access control (e.g., eAuthentication), equipment troubleshooting, etc. Additional ITS resources are available, including the AgLearn online help desk, the APHIS

Technical Assistance Center, and telecommunications host organizations (e.g., net conferencing support).

E. Professional Development Staff (PDS)

PDS provides training and system administration support to VS employees engaging in DL events, including training taken on AgLearn. As part of its mission, PDS also establishes, promotes, and implements DL events in accordance with VS policy and other legislative mandates.


V. RELATED DL WEBSITES

The following websites provide additional information on the requirements, application, and use of DL within VS:

- A. AgLearn Learning Management System: <http://www.aglearn.usda.gov/>.
- B. APHIS Mandatory Non-Technical Training: Go to [http://www.aphis.usda.gov/mrpbs/non\\_technical\\_training.html](http://www.aphis.usda.gov/mrpbs/non_technical_training.html) and click on the Mandatory Non-Technical Training for APHIS Employees link.
- C. VS Training: <http://www.aphis.usda.gov/vs/training/>.















VI. POLICY DEVIATIONS AND EXCEPTIONS






The intent of this policy is to encourage and support the application and use of DL as a viable means of facilitating continuing education efforts of VS employees. It is important to recognize, however, that deviations and exceptions to this policy will be necessary from time to time for various reasons, including mission priority, schedule conflicts, staff shortages, equipment difficulties, and access issues. Any employee who is interested in DL but cannot participate for any reason should notify his/her supervisor. If possible, supervisors are encouraged in such instances to employ alternative methods for achieving VS' mission and commitment to continuing education. Supervisors should also notify VS PDS, who will raise these issues with the VSMT for resolution. In general, inquiries, suggestions, or concerns regarding VS DL policy or the application and use of DL in general or in specific instances should be directed to VS PDS.



John R. Clifford  
Deputy Administrator  
Veterinary Services

## ***Veterinary Services Careers Program (VSCP)***

<b>Location</b>	Veterinary Services Careers Program (VSCP) training provides in-depth orientation and training opportunities to enable new VS employees to smoothly transition to the Federal service and have productive careers in APHIS. The training program consists of a combination of instructor-led courses and distance learning courses. Instructor-led courses are held at various sites throughout the United States. Distance learning courses are self-paced instruction units that are available on the USDA’s web-based AgLearn Learning Management System ( <a href="http://www.aglearn.usda.gov/">http://www.aglearn.usda.gov/</a> ) or, if necessary, on CD-ROM.				
<u>Course Title</u>	<u>Delivery Method</u>	<u>Training Site</u>	<u>Training Dates*</u>	<u>Learning Track</u>	
1. VSCP: Orientation, Part A		N/A	Must be completed prior to attending Orientation, Part B	I & II	
2. VSCP: Orientation, Part B		Riverdale, MD	Nov. 14-16, 2006	I & II	
3. VSCP: Emerging Issues in Agriculture		Ft. Collins, Co	Feb. 27-Mar. 1, 2007	I & II	
4. VSCP: Basic Epidemiology for AHTs	 + 	Ft. Collins, CO	March 20-23, 2007	II	
5. VSCP: Communication & Managing Up		Raleigh, NC	April 17-20, 2007	I (open to all VSCP participants)	
6. VSCP: Basic Epidemiology for VMOs	 + 	Ft. Collins, CO	June 25-29, 2007	II	
7. Program Diseases		N/A	N/A	I & II	
8. Foreign Animal Disease (FAD) Awareness		N/A	N/A	I & II	
9. Introduction to Biosecurity		N/A	N/A	I & II	
10. Cleaning and Disinfection Guideline		N/A	N/A	I & II	
11. Disposal Guideline		N/A	N/A	I & II	
12. Personal Protective Equipment		N/A	N/A	I & II	

13. Export Certification of Animal Products I		N/A	N/A	I & II
<b>Legend</b>  <b>Distance Learning Course (AgLearn and CD-ROM)</b>   <b>Instructor-led Course</b>  				
<b>* Training Dates</b>	All training dates listed are <b>actual course</b> dates, and <b>do not</b> include travel days.			
<b>Purpose</b>	The Veterinary Services Careers Program (VSCP) is designed to meet the need for highly skilled, forward-looking, well-trained veterinarians, and animal health personnel, as well as professional, administrative, and support staff who are ready to meet the challenges of promoting the health and welfare of America's animals. See <b>Course Descriptions</b> for detailed course information.			
<b>Target Audience</b>	<ul style="list-style-type: none"> <li>• VMOs and AHTs hired through the VSCP National Recruitment Program (referred to as VSCP Recruits).</li> <li>• VS employees with no more than 2 years experience with VS and who meet nomination requirements. (See Nominations below) (referred to as VSCP Equivalents)</li> </ul> <p>For information on the VSCP National Recruitment Program, go to <a href="http://www.aphis.usda.gov/lpa/pubs/pub_vscareers.html">http://www.aphis.usda.gov/lpa/pubs/pub_vscareers.html</a> or contact Ms. Eileen Cramer at (301) 734-3826.</p>			
<b>Cost</b>	<p>VSCP Recruits: Travel and miscellaneous expenses for all VSCP courses, as well as additional approved training/development activities, are covered by the Professional Development Staff (PDS).</p> <p>VSCP Equivalents: Travel expenses for all VSCP courses only are covered by PDS.</p>			
<b>Contacts</b>	Ms. Amy Kokesh, VS/PDS, (919) 855-7174			
<b>Nominations</b>	<p>To be accepted into VSCP training, standard nomination/application procedures apply. Please note that "accepted" in this case means that applicants are:</p> <ol style="list-style-type: none"> <li>1) Assigned a learning track (Track I or II), based on employment status and job function;</li> <li>2) Provided professional counseling services for career development (e.g., learning contract); and</li> <li>3) Given priority for attendance at instructor-led courses.</li> </ol> <p>Participants accepted for VSCP training must complete all training courses, as assigned, to receive full credit for completing VSCP training. Please note that formal nomination is not required to take distance learning courses on AgLearn. However, you must have a USDA eAuthentication account to access AgLearn.</p> <p>For additional information relating to VSCP courses, please go to:  <a href="http://www.aphis.usda.gov/animal_health/prof_development/vscp.shtml">http://www.aphis.usda.gov/animal_health/prof_development/vscp.shtml</a> </p>			



# ***Veterinary Services Careers Program (VSCP)***

## *Curriculum & Course Descriptions*

### **1. Learning Tracks**

With respect to the VSCP, Tracks I and II refer to the two paths of learning, or tracks, that nominees are assigned under VSCP. The learning tracks define the specific courses one must complete to receive full credit for completing VSCP, and are based on job functions within VS.

**Track I** - employees in administrative and support positions.

**Track II** - VMOs, AHTs and all other technical/scientific positions.

### **2. Instructor-led Courses**

The following classroom-based courses are part of the VSCP core curriculum and are mandatory for a participant to receive full credit for completing the VSCP.

a. ***Orientation, Part B*** **Riverdale, MD** **November 14 – 16, 2006**  
**(Tracks I & II)**

In this course participants apply the knowledge they gained through the Orientation, Part A, in a series of interactive activities surrounding the VS strategic goals. The course is designed to provide an overview of APHIS, VS through an introduction of the organizational structure of the USDA, APHIS & VS. Presentations and discussions include, but are not limited to, the mission and strategic goals of APHIS, VS, the roles of field and headquarters personnel, employee benefits, and resources available to maximize the participants' developmental opportunities. Participants also have the opportunity to meet and engage in discussions with various members of APHIS and VS management, and thereby gain further insight into the inner-workings of VS and its affiliated units.

b. ***Emerging Issues*** **Ft. Collins, CO** **Feb. 27 – March 1, 2007**  
**(Tracks I & II)**

This course addresses new or emerging diseases; defines current activities, responsibilities, and the changing roles of VS in responding to emerging issues; wildlife disease transmission; APHIS services to new animal industries, such as aquaculture, farmed elk, or bison; dealing with the threat of deliberate disease introduction; and, future trends.

c. ***Basic Epidemiology for AHTs*** **Ft. Collins, CO** **March 20 – 23, 2007**  
**(Track II)**

This course is specifically designed for AHTs and uses a problem-based approach to teach the fundamentals of epidemiology. By the conclusion of the course, AHTs have a basic understanding of the principles of epidemiology and the means by which to apply said principles in the execution of their professional roles and responsibilities. During this period, participants are also introduced to the Centers for Epidemiology and Animal Health (CEAH).

d. ***Basic Epidemiology for VMOs*** **Ft. Collins, CO** **June 25 – 29, 2007**  
**(Track II)**

This course is specifically designed for VMOs and uses a problem-based approach to introduce and reinforce the fundamentals of veterinary epidemiology relevant to their professional roles and responsibilities. During this period, participants are also introduced to the Centers for Epidemiology and Animal Health (CEAH).

e. ***Communication & Managing Up***  
**(Track I)**

Raleigh, NC

April 17 – 20, 2007

This course is designed to enhance interpersonal communication skills; provide critical elements needed to foster teamwork; examine conflict management styles to turn difficult situations into win-win experiences; enable participants to support APHIS leadership and advance their own careers through sound decisions leading to positive results; and, includes an overview of APHIS Records Management procedures for maintaining files, records and correspondence. Although this course is required for all persons assigned to Track I, **it is open to all interested VSCP participants.**

**3. Distance Learning Courses**

Distance learning (DL) allows VS employees to engage in learning opportunities from remote locations, such as taking online courses on the USDA's Learning Management System, AgLearn (<http://www.aglearn.usda.gov/>). The following online courses are part of the VSCP core curriculum and are mandatory for a participant to receive full credit for completing the VSCP.

- a. ***Orientation, Part A (Tracks I & II)*** – This CDROM/DVD-based course provides basic information about the U.S. Department of Agriculture (USDA), the Animal and Plant Health Inspection Service (APHIS) and its organizational units and programs, including Veterinary Services (VS). VSCP participants **must** complete this course before attending Orientation, Part B, which is classroom-based.
- b. ***Program Diseases (Tracks I & II)*** – This online course provides an overview of the major animal disease eradication and control programs, such tuberculosis, brucellosis, pseudorabies, scrapie, and Johne's. Equine and poultry disease initiatives are also addressed. Discussions about the various regulated industries, including their roles and perspectives, are included.
- c. ***Foreign Animal Disease Awareness (Tracks I & II)*** – This online course addresses major foreign animal disease threats to the U.S., including their history and etiology; effects on animal and human health; economical and political influences and impact; current status; preventive programs; and the critical role of APHIS, the States, Industry, and Public Health Officials.
- d. ***Introduction to Biosecurity (Tracks I & II)*** – This online course provides an introduction to biosecurity measures for various situations, including those to be followed when responding to a suspected animal health emergency. The course also reviews the responsibilities of biosecurity team personnel, biosecurity risks, and biosecurity planning.
- e. ***Cleaning and Disinfection Guideline (Tracks I & II)*** – This online course introduces the process of cleaning and disinfection, types of disinfectant agents, the roles & functions of members of a Cleaning & Disinfectant Unit in the Incident Command System, and includes the *Cleaning & Disinfectant Operational Guidelines*, a component of USDA/APHIS' National Animal Health Emergency Management System (NAHEMS). NAHEMS Guidelines, reference materials for VS personnel, are also introduced through this course.
- f. ***Disposal Guideline (Tracks I & II)*** – This online course provides an overview of procedures for disposing of contaminated animal carcasses and by products, as well as safety issues; *Disposal Operational Guidelines* published by USDA/APHIS that outline varying roles to be played on a Disposal Unit in an Incident Command System; to assist federal, state and local agencies in responding to disease outbreaks and animal emergencies; and, serves as a point of reference, a practical field resource, and not statutory requirements as part of the National Animal Health Emergency Management System (NAHEMS).

- g. ***Personal Protective Equipment (Track I & II)*** – This online course is an overview of personal protective equipment (PPE) serving to provide a basic understanding of what PPE is available; when PPE is necessary; what type is necessary; how it is to be worn; what its limitations are, as well as its proper care, maintenance, useful life and disposal.
- h. ***Export Certification of Animal Products I (Tracks I & II)*** – This online course introduces APHIS-VS policies and procedures regarding the certification of animal products for export.



<b><i>VS Manager Training</i></b> <div> <i>October 26, 2006</i>  <i>November 30, 2006</i>  <i>June 14, 2007</i>  <i>July 19, 2007</i>  <i>August 16, 2007</i> </div>	
<b>Location</b>	Net Conference Series
<b>Course Purpose</b>	The purpose of the AVIC Training Program program is to disseminate and reinforce mission-critical information to the AVICs and to empower them with the knowledge and resources available to sustain high levels of performance as key members of the VS management organization and as valued members of our stakeholders. In view of the current HPAI situation, these attributes are particularly important.
<b>Target Audience</b>	<ul style="list-style-type: none"> <li>• Area Veterinarians In Charge (AVICs) with 3 years or less job experience; however, all AVICs are encouraged to attend.</li> <li>• Other VS managers and supervisors are also welcome to participate.</li> </ul>
<b>Pre-requisite</b>	None
<b>Cost</b>	No tuition fee or travel is required.
<b>Contact</b>	Mr. Raymond Francis, VS/PDS, (301) 734-0023
<b>Nominations</b>	No nominations are required to participate in this program.
<b>Letters</b>	General announcements are made approximately 2 weeks prior to the net conference sessions.

<i>Laboratory Biosafety</i>		<i>December 5 – 7, 2006</i>
<b>Location</b>	Webcast presentation – participants sign in via the web and on the phone. Web site and login will be provided.	
<b>Course Purpose</b>	This training will provide information on proper facility security procedures.	
<b>Lab Biosafety Inspector</b>	A Federal VMO, designated by APHIS, to make Laboratory inspections for adherence to security standards.	
<b>Target Audience</b>	VMOs and others who are, or will be, performing these inspections.	
<b>Prerequisite</b>	<ul style="list-style-type: none"> <li>• Must be a veterinarian.</li> <li>• Must have successfully completed Lab Inspector training</li> <li>• Must be designated by the AVIC's office as a prospective inspector.</li> </ul>	
<b>Cost</b>	No tuition fee.	
<b>Contact</b>	Ed Oliver, VS/PDS, (970) 494-7219	
<b>Nominations</b>	All nominations must be entered via AgLearn. The Regional Office will make the approved prioritized nominations on-line. Selections will be made by VS/NCIE.	
<b>Selection</b>	Selection is based on information provided to the National Lab Bio Safety Manager in Riverdale, MD from the Regional Offices.	
<b>Deadline</b>	<p>To the Regional Office: November 20, 2006</p> <p>To VS/PDS: November 22, 2006</p>	
<b>Letters</b>	One week before class begins, letters are sent to the participants and speakers, Regional Training Coordinators, and Regional Directors. This shortened time is due to the electronic registration process via AgLearn.	
<b>Regional Offices</b>	Forward the letters to AVICs and AOs/ASAs.	

<b><i>Bovine Semen and Embryos Exported to the European Union</i></b>		<b><i>October 31 – November 2, 2006</i></b>
<b>Location</b>	Riverdale, Maryland	
<b>Course Purpose</b>	The Bovine Semen and Embryos Exported to the European Union (EU) course has been designed to provide an overview of EU legislation to ensure compliance; provide guidelines to field personnel in the interpretation of legislation; ensure consistency of inspections between States; review APHIS/AETA and APHIS/CSS MOUs; respond to EU audit recommendations; and, provide an overview of the industry.	
<b>Target Audience</b>	This course has been developed and scheduled to provide training for Veterinary Medical Officers (VMOs) responsible for inspection, approval, re-inspection, and supervision of bovine semen collection and embryo collection facilities approved to export to the EU.	
<b>Prerequisite</b>	Must be a veterinarian.	
<b>Cost</b>	No tuition fee. Travel, per diem, etc. are covered by the Area or Regional Office of each participant.	
<b>Contact</b>	Amy Kokesh, VS/PDS, (919) 855-7174	
<b>Nominations</b>	There are <b>NO</b> nominations for this course.	
<b>Selection</b>	Selection is based on the number of names received, the number of participant slots available, and prioritization by the Regional Training Coordinators.	
<b>Deadline</b>	Eight weeks before class begins.	
<b>Letters</b>	Six weeks before class begins, letters are sent to the participants and speakers, Regional Training Coordinators, and Regional Directors.	
<b>Regional Offices</b>	Forward the letters to AVICs and AOs/ASAs.	

<i>Basic Epidemiology for CVB/NVSL Personnel</i>		<i>November 13 – 17, 2006</i>
<b>Location</b>	Center for Veterinary Biologics (CVB) National Veterinary Services Laboratories (NVSL), Ames, Iowa	
<b>Course Purpose</b>	To provide the knowledge and skills of Basic Epidemiology to laboratory scientists and technicians so that they can gain an understanding of epi principles and how those play into their work areas.	
<b>Target Audience</b>	VMOs and others interested in Epidemiology in the Ames community.	
<b>Pre-requisite</b>	None	
<b>Cost</b>	No tuition fee. No travel necessary for participants.	
<b>Contact</b>	Ms. Nancy Platter, VS/NVSL-PDS, (515) 663-7501	
<b>Nominations</b>	There are <b>NO</b> nominations for this course.	
<b>Selection</b>	Participants will be determined by the Directors of CVB and NVSL.	
<b>Letters</b>	Participants will be invited via email.	
<b>Regional Offices</b>	CVB/NVSL Region, Ames, Iowa only.	



<i>Pathologist Foreign Animal Disease (FAD) School</i>		<i>November 13 – 17, 2006</i>
<b>Location</b>	Foreign Animal Disease Diagnostician Laboratory, Plum Island, New York	
<b>Course Purpose</b>	The purpose of this training is to orient veterinarians who work as laboratory diagnosticians and veterinary pathologists in the diagnosis of foreign animal diseases of livestock and poultry in the United States.	
<b>Target Audience</b>	This course is recommended for pathologists, parasitologists, virologists, and bacteriologists.	
<b>Pre-requisite</b>	None	
<b>Cost</b>	Travel costs only	
<b>Contact</b>	Ms. Elizabeth Clark, VS/PDS, (631) 323-3188	
<b>Nominations</b>	All nominations must be sent from the Area Offices to the Regional Offices. The Regional Office will fax the approved prioritized nominations to VS/PDS, at (301) 734-4964.	
<b>Deadline</b>	<p>To the Regional Office: September 21, 2006</p> <p>To VS/PDS: September 28, 2006</p>	





<i>Swine Health Protection Act and Classical Swine Fever Training</i>		<i>February 13 – 15, 2007</i>
<b>Location</b>	San Juan, Puerto Rico	
<b>Course Purpose</b>	<p>Upon completion of this course, students will be able to:</p> <ul style="list-style-type: none"> <li>• Effectively communicate with swine producers that feed garbage the purpose and requirements of the Swine Health Protection Act.</li> <li>• Perform a complete inspection on a garbage feeder operation and complete all the required documentation and forms.</li> <li>• Recognize disease agents that can be in garbage that may disease in swine that eat the garbage, and clinical conditions in domestic swine that are indicative of a foreign animal disease.</li> <li>• Train other livestock inspectors in the field on how to do proper garbage feeder inspections and communicate the importance of the Swine Health Protection Act to swine producers who feed garbage to swine.</li> <li>• Understand their role in the CSF Surveillance Program and perform field functions to support this program.</li> </ul>	
<b>Target Audience</b>	This course is being held in San Juan, Puerto Rico for folks who are Federal and State VMOs and AHTs who are, or will be, involved in Swine Health Protection Act and Classical Swine Fever program activities.	
<b>Pre-requisite</b>	None	
<b>Cost</b>	Any travel and associated costs with travel.	
<b>Contact</b>	Ms. Nancy Platter, VS/NVSL-PDS, (515) 663-7501 Dr. David Pyburn, VS, (515) 284-4122 (Subject Matter Expert)	
<b>Nominations</b>	All nominations must be sent from the Area Offices to the Regional Offices. The Regional Office will fax the approved prioritized nominations to VS/PDS, at (301) 734-4964.	
<b>Nomination Deadline</b>	To the Regional Office: December 11, 2006  To VS/PDS: December 18, 2006	
<b>Selection</b>	VS Regional Office	
<b>Letters</b>	Participant letters for the February course will be sent to attendees by January 1, 2007 with return response by January 15, 2007.	

<i>Advanced Johne's Disease Coordinator Training</i>		<i>March 7 – 8, 2007</i>
<b>Location</b>	New Orleans, Louisiana	
<b>Course Purpose</b>	The training provides Designated Johne's Disease Coordinator's (DJCs) with a deep understanding of current issues regarding Johne's disease and the USDA's Johne's Disease program. Emphasis is placed on discussion based learning techniques. Topics of discussion include the economic impact of Johne's Disease, Herd Testing Strategies, Risk Communication.	
<b>DJC</b>	A State or Federal veterinarian designated by the state veterinarian and the AVIC to coordinate a state's Johne's Disease Program.	
<b>Target Audience</b>	DJCs who have previously attended the Basic Johne's Disease Training and are due for refresher training.	
<b>Time Requirements</b>	<ul style="list-style-type: none"> <li>◆ 2 hours of online pre-course, self-paced study</li> <li>◆ 2 days of onsite training</li> </ul>	
<b>Cost</b>	Travel costs only	
<b>Contact</b>	Dr. Robert Dickens, VS/PDS, (919) 855-7171	
<b>Nominations</b>	All nominations must be sent from the Area Offices to the Regional Offices. The Regional Office will fax the approved prioritized nominations to VS/PDS, at (301) 734-4964. Selections will be made by VS/NAHPP	
<b>Selection</b>	Selections will be made by VS/NAHPP	
<b>Deadline</b>	To the Regional Office:	December 11, 2006
	To VS/PDS:	December 18, 2006

<b><i>Basic Brucellosis Epidemiology (BBE)</i></b>		<b><i>March 6 – 8, 2007</i></b>
<b>Location</b>	Austin, Texas	
<b>Course Purpose</b>	The purpose of this course is to train state or federal regulatory veterinarians in the principles of the brucellosis eradication program, including the organism, the disease, the epidemiology, the vaccines, etc.	
<b>Target Audience</b>	Federal and State VMOs who are, or will be, actively involved in the Bovine Brucellosis Eradication Program.	
<b>Prerequisite</b>	<ul style="list-style-type: none"><li>• Must be a veterinarian.</li><li>• Must be designated by the AVIC’s office as a prospective inspector.</li></ul>	
<b>Cost</b>	No tuition fee. Travel expenses only.	
<b>Contact</b>	Dr. Alan Huddleston, VS/PDS, (301) 734-0675	
<b>Nominations</b>	All nominations must be sent from the Area Offices to the Regional Offices. The Regional Office will fax the approved prioritized nominations to VS/PDS, at (301) 734-4964. Selections will be made by VS/NCIE.	
<b>Selection</b>	Selection is based on information provided to the National Lab Bio Safety Manager in Riverdale, MD from the Regional Offices.	
<b>Deadline</b>	To the Regional Office: December 14, 2006  To VS/PDS: December 21, 2006	
<b>Letters</b>	Six weeks before class begins, letters are sent to the participants and speakers, Regional Training Coordinators, and Regional Directors.	
<b>Regional Offices</b>	Forward the letters to AVICs and AOs/ASAs.	

<i>Designated Tuberculosis Epidemiology (DTE)</i>		<i>March 27 – 28, 2007</i>
<b>Location</b>	Austin, Texas	
<b>Course Purpose</b>	DTEs are <u>required</u> to take this course every second year to maintain status as a DTE. The seminar will cover new and emerging trends in the bovine tuberculosis eradication program and discuss the latest research that may aid in eradication. Also, in the past 12-18 months extensive revisions and updating of the TB program administrative infrastructure have been carried out and are ongoing; during this session the major changes and updates in the UM&R, VS Memo's, and CFR, will be covered. This is an interactive presentation aimed at involving the participant in the decision making process revolving around current eradication activities.	
<b>DTE</b>	A State or Federal epidemiologist designated in each state, by APHIS, to make decisions concerning the use and interpretation of diagnostic tests for tuberculosis and to manage the TB program. The DTE is selected jointly by the cooperating State animal health official, the Area Veterinarian-in-Charge, and the Regional Tuberculosis Epidemiologist. The DTE has the responsibility to determine the scope of epidemiologic investigations, determine the status of herds, assist in development of individual herd plans, and coordinate disease surveillance and eradication programs within his or her geographic area of responsibility.	
<b>Target Audience</b>	This course has been developed and scheduled to provide the training required for approved Designated Tuberculosis Epidemiologists (DTEs) to maintain their approval.	
<b>Prerequisite</b>	Must be a DTE or a DTE "in-Training" (If you are not sure if you are a DTE or a DTE in-training, please contact the Tuberculosis Epidemiologist in your Region.)	
<b>Cost</b>	Travel Costs only. <b>These costs must be paid by your area office (Federal Employees) or the State Veterinarian's Office (State employees).</b>	
<b>Contact</b>	Dr. Robert Dickens, VS/PDS, (919) 855-7171	
<b>Nominations</b>	There are <b>NO</b> nominations for this course. AVICs will contact the Regional Tuberculosis Epidemiologist if they want to add any additional employees (Federal or State) to this class that may not be DTEs.	
<b>Selection</b>	Selection is based on information provided to the National Designated Tuberculosis Epidemiologist from the Regional TB Epidemiologists. List of DTEs is provided twice a year to the National staff from the Regional staff (October 15th and May 15th).	
<b>Deadline</b>	Eight weeks before class begins. (Regional offices will inform National staff of any additional participants.)	
<b>Letters</b>	Approximately five to six weeks before class begins, letters are sent to the participants and speakers, Regional Training Coordinators, and Regional Directors.	
<b>Regional Offices</b>	Forward the letters to AVICs and AOs/ASAs.	

<i>Poultry Foreign Animal Disease Awareness (FADA)</i>		<i>April 17 – 19, 2007</i>
<b>Location</b>	Nashville, Tennessee	
<b>Course Purpose</b>	<p>The purpose of the course is to increase collaborations and understanding between Poultry Industry veterinarians and Public Service veterinarians and to develop a network of poultry veterinarians that could be called upon in case of a disease emergency. Participants at this course should expect to achieve the following:</p> <ul style="list-style-type: none"> <li>• A basic understanding of federal emergency management response.</li> <li>• An understanding of the roles and responsibilities within the group for assisting in disease emergencies.</li> <li>• An understanding of Import/ Export and trade issues.</li> <li>• A comprehensive understanding of the pathogenesis, epidemiology and diagnosis of Exotic Newcastle Disease and Highly Pathogenic Avian Influenza.</li> <li>• An understanding of the lessons learned in recent disease outbreaks throughout the world.</li> </ul>	
<b>Target Audience</b>	Poultry Industry veterinarians	
<b>Pre-requisite</b>	You must be a Poultry Industry veterinarian	
<b>Cost</b>	Travel and Per Diem.	
<b>Contact</b>	Dr. George Chambless, VS/PDS, (919) 855-7166 Ms. Nancy Platter, VS/NVSL-PDS, (515) 663-7501	
<b>Nominations</b>	By invitation only.	
<b>Deadline</b>	February 1, 2007	



<b><i>Basic Johne's Disease Coordinator Training</i></b>		<b><i>April 24 – 26, 2007</i></b>
<b>Location</b>	Madison, Wisconsin	
<b>Course Purpose</b>	The training provides Veterinary Medical Officers with the information and tools needed to collaborate with the industry in designing Johne's control programs. Emphasis is placed on the practical application of risk assessments in developing a Johne's Disease herd management plan. Participants have the opportunity to practice skills in real or simulated (video-taped) farm visits. Topics of discussion include Johne's Disease pathogenesis and epidemiology; available diagnostic test/procedures and interpretation of results; regulatory issues; voluntary programs; and public health concerns.	
<b>Target Audience</b>	Federal and State VMOs who are, or will be, involved in Johne's Disease program activities.	
<b>Time Requirements</b>	<ul style="list-style-type: none"> <li>◆ 4 – 6 hours of online pre-course, self-paced study</li> <li>◆ 3 days of onsite training that includes: <ul style="list-style-type: none"> <li>• 4 four-hour periods of instruction and group discussions</li> <li>• 2 four-hour periods of farm visits and group presentations</li> </ul> </li> </ul>	
<b>Cost</b>	Travel costs only	
<b>Contact</b>	Dr. Robert Dickens, VS/PDS, (919) 855-7171	
<b>Nominations</b>	All nominations must be sent from the Area Offices to the Regional Offices. The Regional Office will fax the approved prioritized nominations to VS/PDS, at (301) 734-4964. Selections will be made by VS/NAHPP.	
<b>Nomination Deadline</b>	To the Regional Office: February 1, 2007  To VS/PDS: February 8, 2007	



<i>Designated Transmissible Spongiform Encephalopathy (TSE)</i>		<i>April 30 – May 4, 2007</i>
<b>Location</b>	National Veterinary Services Laboratories (NVSL), Ames, Iowa	
<b>Course Purpose</b>	<p>Participation in this conference on an every other year basis is <u>required</u> for you to maintain your status as a designated scrapie and/or CWD epidemiologist (DSE or DCE). <b>Participants at this year's course may also include persons being considered to function as a designated epidemiologist in their State, and others actively involved with the scrapie and/or CWD eradication programs.</b> The seminar will cover established procedures for the scrapie and CWD programs, changes and emerging issues in the scrapie and CWD eradication programs, and the latest research that may aid in eradication. Many of the lectures and small group exercises of this conference are interactive and aimed at involving the participant in the decision-making process revolving around current eradication activities. At the end of the seminar, the participant should have a working knowledge of the science of scrapie and CWD as well as the current diagnostics, epidemiology, herd certification requirements, appraisal and indemnity procedures, depopulation and disposal processes, and the interstate movement restrictions for each disease as detailed in rules, memos and uniform methods and rules guidance (UM&amp;Rs) published or issued by Veterinary Services. Laboratory exercises afford the participant the opportunity to further develop necropsy and live animal sample collection skills.</p>	
<b>DSE</b>	<p>A Designated Scrapie Epidemiologist (DSE) is a State or Federal veterinarian designated by APHIS and the State to make decisions about the use and interpretation of diagnostic tests and field investigation data and the management of scrapie-affected flocks. DSEs have met the requirements outlined in VS Memorandum 557.3 and have been approved by the State animal health, the VS area veterinarian-in-charge, the VS regional epidemiologist and the VS national scrapie staff.</p>	
<b>DCE</b>	<p>A Designated CWD Epidemiologist (DCE) is a State or Federal epidemiologist who has demonstrated the knowledge and ability to perform the functions required to make decisions regarding the use and interpretation of diagnostic tests and field investigation data and the management of CWD-affected herds. DCEs have met the requirements outlined in VS Memorandum 574.1 and have been approved by the State animal health or wildlife agency official, the VS area veterinarian-in-charge, the VS regional epidemiologist and the VS national CWD staff.</p>	
<b>Target Audience</b>	<p>This course has been developed and scheduled primarily to provide the training required for Designated Scrapie Epidemiologists (DSEs) and for Designated CWD Epidemiologists (DCEs) to maintain their approved status.</p>	
<b>Pre-requisite</b>	<ul style="list-style-type: none"> <li>• Each participant must be a designated or provisional designated epidemiologist for scrapie and/or CWD, or actively involved in scrapie and/or CWD activities in their state.</li> <li>• Each participant must have successfully completed the Specimen, Packaging and Shipping Course, available on AgLearn.</li> </ul>	

<b>Cost</b>	<p>No tuition fee (direct costs).</p> <p><u>For federal employees:</u> Travel costs are covered employee's unit.</p> <p><u>For State employees:</u> Travel costs are covered by federal-state cooperative agreements. State employees in states without federal-state cooperative agreements may contact PDS.</p>
<b>Contact</b>	<p>Dr. Marilyn S. Miller, VS/PDS, (301) 734-0802</p> <p>Nancy Platter, VS/PDS, (515) 663-7501</p>
<b>Nominations</b>	<p>DSEs and DCEs are required to attend this conference every other year to maintain their approved status. The regional epidemiologists will provide a list of those required to attend and any others recommended for attendance to the AVICs.</p> <p>AVICs may nominate additional Federal or State participants by contacting the Regional Scrapie or CWD Epidemiologist. This may include an individual to be named later when a DSE/DCE position is in the process of being filled.</p>
<b>Selection</b>	<p>Final selection is based on information provided to the national scrapie and CWD program staff from the Regional Scrapie and CWD Epidemiologists.</p>
<b>Deadline</b>	<p>February 5, 2006: Regional Epidemiologists will inform AVICS of DSEs and DCEs who require training that year.</p> <p>February 20, 2006: AVICs will confirm DSEs and DCEs from their state, nominate additional nominations, and send both to regional epidemiologists. Regional Epidemiologists will send regional list to national program staff.</p> <p>March 5, 2006: National Scrapie and CWD program staff will provide PDS with list participants.</p>
<b>Letters</b>	<p>Four weeks before class begins letters are sent to the Participants and Speakers, Regional Training Coordinators, and Regional Epidemiologists. Regional Epidemiologists will forward letter to AVICs.</p>

<i>Designated Brucellosis Epidemiology (DBE)</i>		<i>May 22 – 24, 2007</i>
<b>Location</b>	Bozeman, Montana	
<b>Course Purpose</b>	To provide the additional DBE Refresher training required for DBEs to be re-approved and maintain their DBE status: All DBEs are approved for a two-year period only. To be re-approved, all DBEs must receive additional training every two years in brucellosis epidemiology to maintain their expertise. This DBE Refresher training course is developed and scheduled to meet this requirement.	
<b>DBE</b>	A current approved DBE is an individual who has completed the training requirements detailed in VS Memorandum 551.10 and submitted the form which verifies and approves this required training. In addition, in order to maintain current approved DBE status, those individuals functioning as DBEs in each state must attend Designated Brucellosis Epidemiologist refresher training every 2 years. Only those individuals meeting these requirements are to be functioning as current approved DBEs.	
<b>Target Audience</b>	This course has been developed and scheduled to provide the training required for approved Designated Brucellosis Epidemiologists (DBEs) to maintain their approval.	
<b>Pre-requisite</b>	Be a current officially approved DBE and have worked as a DBE during the previous two years.	
<b>Cost</b>	No tuition fee (direct costs). Travel, per diem, etc. (indirect costs) are covered by the Professional Development Staff. An accounting code will be provided upon receipt of the participant and speaker letters.	
<b>Contact</b>	Ms. Nancy Platter, VS/NVSL-PDS, (515) 663-7501	
<b>Nominations</b>	There are <b>NO</b> nominations for this course.	
<b>Selection</b>	Selection is based on information provided to the National Designated Brucellosis Epidemiologist from the Regional Brucellosis Epidemiologists. List of DBEs is provided twice a year to the National staff from the Regional staff (October 15 <sup>th</sup> and May 15 <sup>th</sup> ).	
<b>Deadline</b>	Six weeks before class begins. Regional offices will inform National staff of any additional participants.	
<b>Letters</b>	Four weeks before class begins letters are sent to the Participants and Speakers, Regional Training Coordinators, and Regional Directors.	
<b>Regional Offices</b>	Forward the letters to AVICs and AOs/ASAs.	

<b><i>Foreign Animal Diseases (FAD) in Wildlife</i></b>		<b><i>May 15 – 17, 2007</i></b>
<b>Location</b>	Athens, Georgia	
<b>Course Purpose</b>	To familiarize participants with foreign and emerging animal diseases in wildlife and their implications.	
<b>Target Audience</b>	Foreign Animal Disease Diagnosticians (FADDs), Wildlife Biologists, state and Federal Veterinarians.	
<b>Time Requirements</b>	3 days	
<b>Cost</b>	Travel and Per Diem	
<b>Contact</b>	Dr. George Chambless, VS/PDS, (919) 855-7166	
<b>Nominations</b>	All nominations must be sent from the Area Offices to the Regional Offices. The Regional Office will fax the approved prioritized nominations to VS/PDS, at (301) 734-4964. Selections will be made by VS/Emergency Programs Staff and the Emergency Leadership Team. State Veterinary nominees should be submitted to the Regional Offices by the AVIC, as well.	
<b>Nomination Deadline</b>	To the Regional Office: February 22, 2007  To VS/PDS: March 1, 2007	

<b><i>Animal Identification Coordinator Workshop</i></b>		<b><i>July 24 – 26, 2007</i></b>
<b>Location</b>	Fort Worth, Texas	
<b>Course Purpose</b>	This workshop introduces new animal identification concepts and provides current information resources relevant to animal identification initiatives. The training addresses significant new issues, trends, and developments affecting VS programs and the implementation strategies designed to achieve program goals. The training serves as an open forum in which Animal Identification Coordinators can network to share successes and challenges.	
<b>Target Audience</b>	Animal Identification Coordinators (AICs).	
<b>Time Requirements</b>	3 days	
<b>Cost</b>	Travel costs only	
<b>Contact</b>	Dr. Robert Dickens, VS/PDS, (919) 855-7171	
<b>Nominations</b>	All nominations must be sent from the Area Offices to the Regional Offices. The Regional Office will fax the approved prioritized nominations to VS/PDS, at (301) 734-4964. Selections will be made by VS/NAHPP.	
<b>Nomination Deadline</b>	To the Regional Office: May 1, 2007  To VS/PDS: May 8, 2007	

<b>Smith-Kilborne</b>		<b>May 29 – June 5, 2007</b>
<b>Location</b>	Cornell University, Ithaca, New York and the Plum Island Animal Disease Center, Plum Island, New York	
<b>Course Purpose</b>	<p>The Smith-Kilborne Program is designed to acquaint veterinary students with various foreign animal diseases which potentially threaten our domestic animal population. The program includes both classroom presentations on diseases and their implications combined with laboratory experiences.</p> <p>Visit the Smith-Kilborne webpage:  <a href="http://www.aphis.usda.gov/animal_health/prof_development/smith_kilborne.shtml">http://www.aphis.usda.gov/animal_health/prof_development/smith_kilborne.shtml</a> </p>	
<b>Target Audience</b>	Second-year veterinary students	
<b>Pre-requisite</b>	None	
<b>Cost</b>	No cost to participants. PDS pays for student travel expenses.	
<b>Contact</b>	Dr. Jason Baldwin, VS/PDS, (970) 494-7225	
<b>Nominations</b>	The Dean's office of each school announces application procedures and determines its own selection criteria.	
<b>Selection</b>	Each school selects one student and forwards the name to PDS.	
<b>Deadline</b>	January 2007	
<b>Letters</b>	April 2007	



<b><i>Basic Tuberculosis (TB) Epidemiology</i></b>		<b><i>June 25 – 28, 2007</i></b>
<b>Location</b>	National Veterinary Services Laboratories (NVSL), Ames, Iowa	
<b>Course Purpose</b>	Upon course completion, participants will fulfill the requirements and responsibilities for the Federal-State Bovine Tuberculosis (TB) Eradication Program and the TB Eradication Program in Cervidae. The course provides information on TB pathology, immunology, testing, epidemiology, and surveillance. Current Program status and strategic goals, as well as issues such as TB in wildlife will also be addressed. The participant will gain skills in TB testing (comparative cervical tuberculin), interpretation of herd testing results, epidemiological investigations, and slaughter surveillance.	
<b>Target Audience</b>	Federal and State VMOs who are, or will be, actively involved in the Bovine TB Eradication Program.	
<b>Time Requirements</b>	4 days	
<b>Cost</b>	Travel costs only	
<b>Contact</b>	Dr. Robert Dickens, VS/PDS, (919) 855-7171 Ms. Nancy Platter, VS/NVSL-PDS, (515) 663-7501	
<b>Nominations</b>	All nominations must be sent from the Area Offices to the Regional Offices. The Regional Office will fax the approved prioritized nominations to VS/PDS, at (301) 734-4964. Selections will be made by VS/NAHPP.	
<b>Nomination Deadline</b>	To the Regional Office: April 4, 2007  To VS/PDS: April 11, 2007	

<i>Live Bird Market System (LBMS)</i>		<i>August 21 – 23, 2007</i>
<b>Location</b>	Davis, California	
<b>Course Purpose</b>	<ol style="list-style-type: none"> <li>1. Understand how to properly evaluate and define LBMS stakeholder activity and compliance with applicable state law, program standards, and licensing requirements through consistent audit and evaluation of paper records from the LBMS.</li> <li>2. Be able to identify and evaluate biosecurity and disease risks in the auction and flea market segments of the LBMS and subsequently provide education and outreach information on appropriate mitigation techniques e.g., cleaning, disinfection, best practices in biosecurity and transport to retail.</li> <li>3. Demonstrate the ability to communicate knowledge of biosecurity issues and best practices to various stakeholder groups via a pre-prepared presentation.</li> <li>4. Understand proper bird restraint, swabbing, and euthanasia techniques and be able to practice them.</li> </ol>	
<b>Target Audience</b>	Federal and State VMOs and AHT's who are, or will be, actively involved in the Live Bird Marketing System.	
<b>Pre-requisite</b>	None.	
<b>Cost</b>	Travel and Per Diem Only.	
<b>Contact</b>	Dr. George Chambless, VS/ PDS, (919) 855-7166	
<b>Nominations</b>	All nominations must be sent from the Area Offices to the Regional Offices. The Regional Office will fax the approved prioritized nominations to VS/PDS, at (301) 734-4964. State Veterinary nominees should be submitted to the Regional Offices by the AVIC, as well.	
<b>Selection</b>	Selections will be made by VS/NAHPP.	
<b>Deadline</b>	To the Regional Office:	June 5, 2006
	To VS/PDS:	June 19, 2006

<b><i>Aquaculture</i></b>		<b><i>September 11 – 13, 2007</i></b>
<b>Location</b>	Madison, Wisconsin	
<b>Course Purpose</b>	The purpose of the Aquaculture conference is to give participants exposure to physical, biological and epizootiological concepts of aquaculture.	
<b>Target Audience</b>	Federal Aquaculture Liaisons	
<b>Pre-requisite</b>	You must be a veterinarian.	
<b>Cost</b>	Travel and per diem only.	
<b>Contact</b>	Dr. Robert Dickens, VS/ PDS, (919) 855-7171	
<b>Nominations</b>	By invitation only.	



**United States  
Department of  
Agriculture**

**Animal and  
Plant Health  
Inspection Service**

**Veterinary  
Services**

**Center for Animal  
Epidemiology and  
Animal Health**

# Training Courses

**Provided by the  
Centers for  
Epidemiology and  
Animal Health**



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## **NOMINATION/APPLICATION PROCEDURES**

Each field nominee must submit the enclosed nomination request through the Area Office to the Regional Office. Each headquarters nominee must submit the enclosed nomination request through the Associate Deputy Administrator's Office, National Animal Health Policy Programs (NAHPP). The Regional Office and/or the NAHPP, Associate Deputy Administrator's Office will then submit the prioritized nominations to the nomination address listed in the course description. First priority is given to those individual(s) who are in absolute need of the training. More than one person may be placed in priority one status.

The Centers for Epidemiology and Animal Health (CEAH) cannot accept nominations directly unless they come through the Regional Office or the NAHPP, Associate Deputy Administrator's Office. If you have not nominated a participant, or have vacant positions that are to be filled, and want to reserve a space in the course, you may write "to be determined," or, "TBD" on the nomination form. Director approval is required for the named nominations, as well as a commitment to fill or cancel reserved spaces.

All training-related correspondence (select, non-select, cancellation, etc.) will be sent directly to the participants by email with copies to the VSMT, Training Coordinators, and supervisors. Hard copies will no longer be issued. Requests for exceptions may be made to the CEAH Training Coordinator.

## **COURSE DESCRIPTION**

Each course description gives the course title, dates, purpose, and in some cases, objectives, eligibility, location, source person, and nomination contact person.

The course dates do not include travel dates. Travel dates are normally the day before the start of the course and the afternoon and evening of, or the day after, the end of the course.

## **CANCELLATION AND SUBSTITUTION POLICY**

Based on each particular course, it is important that CEAH be notified as soon as possible in the case of a substitution and/or withdrawal of a course participant(s). We will accept substitutions and cancellations up to 1 week before the start of the course. Any changes in the status of nominees or course logistics will be communicated immediately through the Training Coordinators.



<b>Generic Data Base 1 - Data Entry Procedures</b>		<b>October 31 - November 2, 2006</b> <b>January 30 - February 1, 2007</b> <b>April 10 - 12, 2007</b> <b>New Date and Location! March 20 – 22, 2007</b> <b>July 24 - 26, 2007</b>
<b>Location</b>	Ft. Collins, Colorado {October, January, April, and July courses} Raleigh, North Carolina {March course}	
<b>Course Purpose</b>	Participants will learn about the Generic Data Base, its structure, and how to use the APHIS Menu System to enter program disease data into the GDB. The primary focus of this course will be how to enter premises records, brucellosis vaccination records, brucellosis and tuberculosis herd test records, brucellosis and pseudorabies market/slaughter test records, status records, tracebacks, and brucellosis ring test records.	
<b>Target Audience</b>	This course is recommended primarily for data entry clerks, but also for epidemiologists, program records supervisors, AVICs, and any other data users. This class is highly recommended, but not required, as a preparation for those interested in the data retrieval class.	
<b>Cost</b>	Travel costs only	
<b>Contact</b>	Michael Durham, VS/CEAH, (970) 494-7295	
<b>Nominations</b>	Nominations are to be sent to the Regional Director's Office. The Regional Office will forward the nominations to CEAH.	
<b>Nomination Deadline</b>	<div> To Region: September 15, 2006 {October course}  December 22, 2006 {January course}  March 2, 2006 {April course}  February 20, 2007 {March course}  June 11, 2007 {July course} </div> <div> To CEAH: September 29, 2006 {October course}  January 5, 2007 {January course}  March 9, 2007 {April course}  February 27, 2007 {March course}  June 18, 2007 {July course} </div>	

<b><i>GDB for Program Managers</i></b> <div> <b><i>November 28 - 30, 2006</i></b>  <b><i>February 13 - 15, 2007</i></b>  <b><i>New Date and Location! May 22 – 24, 2007</i></b>  <b><i>June 26 - 28, 2007</i></b> </div>	
<b>Location</b>	Ft. Collins, Colorado {November, February, and June courses} Raleigh, North Carolina {May course}
<b>Course Purpose</b>	<p>This course primarily teaches the theoretical and functional organization of the data in the GDB, with emphasis on specific disease programs and their management with the GDB, and program disease reporting.</p> <p>Participants will learn about the APHIS physical network (hardware and software), and how it uses regional, state, and local servers to provide database capabilities to each state in the U.S. They will also learn the terminology and basic concepts of the relational database model, and how the GDB implements this model. Participants will become familiar with the different Veterinary Services animal disease programs and how these programs utilize the GDB as a data repository, as well as the minimal data requirements for disease program reports routinely submitted to the National Animal Health Programs Staff (i.e. monthly reports for Brucellosis, TB, Pseudorabies, etc.). Throughout this course the participants will learn the capabilities of the GDB to provide data for program management and reporting, and the data resources required in order for the GDB to fulfill those capabilities.</p>
<b>Target Audience</b>	This course is recommended for individuals responsible for utilizing the GDB in managing disease control and eradication programs. Intended audience includes AVICs, Area and Regional Epidemiologists, program records supervisors, data management specialists, and any others who make decisions regarding the need for and management of data.
<b>Prerequisites</b>	None. This course is highly recommended, but not required, as a preparation for those interested in the data retrieval course.
<b>Cost</b>	Travel costs only
<b>Contact</b>	Michael Durham, VS/CEAH, (970) 494-7295
<b>Nominations</b>	Nominations are to be sent to the Regional Director's Office. The Regional Office will forward the nominations to CEAH.
<b>Nomination Deadline</b>	<div> To Region: <div> October 13, 2006 {November course}  January 5, 2007 {February course}  April 24, 2007 {May course}  May 11, 2007 {June course} </div> </div> <div> To CEAH: <div> October 27, 2006 {November course}  January 12, 2007 {February course}  May 1, 2007 {May course}  May 25, 2007 {June course} </div> </div>

<b>Generic Data Base – Basic Discoverer Queries for Data Retrieval</b> <div> <i>December 12 - 13, 2006</i>  <i>January 9 - 10, 2007</i>  <i>May 1 – 2, 2007</i>  <i>New Date and Location! May 8 – 10, 2007</i>  <i>June 5 - 6, 2007</i> </div>	
<b>Location</b>	Ft. Collins, Colorado {December, January, June, and May 1-2 courses} <i>Raleigh, North Carolina {May 8-10 course}</i>
<b>Course Purpose</b>	Participants will learn basic data retrieval techniques of how to use Discoverer over the Internet to create and execute reports in the Generic Data Base. Topics to be covered include GDB table structure, Discoverer forms usage, basics of logical operators, standard data retrieval techniques, and using and interpreting the reports for Discoverer that have already been created by CEAH.
<b>Target Audience</b>	Federal and State Personnel
<b>Course Format</b>	Day 1: 8:00am – 12:00pm...Overview of SQL and GDB architecture (or an Overview of Discoverer, if all participants have met the course prerequisites stipulated below) 1:00pm – 5:00pm...Fundamentals of Discoverer  Days 2-3: all day...Basic and Advanced Discoverer Skills
<b>Prerequisites</b>	Understands the Generic Data Base's structure (either by performing GDB data-entry work regularly as part of your job or by having attended the CEAH "GDB Data-Entry" workshop or "VS Databases" workshop).
<b>Cost</b>	Participants pay travel and hotel.
<b>Contact</b>	Michael Durham, VS/CEAH, (970) 494-7295
<b>Nominations</b>	Nominations are to be sent to the Regional Director's Office. The Regional Office will forward the nominations to CEAH.
<b>Nomination Deadline</b>	<div>           To Region:           <div>             October 27, 2006 {December course}              December 8, 2006 {January course}              March 23, 2007 {May 1-2 course}              March 30, 2007 {May 8-10 course}              April 27, 2007 {June course}           </div> </div> <div>           To CEAH:           <div>             November 10, 2006 {December course}              December 11, 2006 {January course}              March 30, 2007 {May 1-2 course}              April 6, 2007 {May 8-10 course}              May 11, 2007 {June course}           </div> </div>

<i>Scrapie Data Entry and Management</i>		<i>December 12 - 14, 2006</i> <i>May 22 - 24, 2007</i>	
Location	Ft. Collins, Colorado		
Course Purpose	<p>This course focuses on use of the Scrapie national generic database (SNGD-GDB). Emphasis will be on data entry and data management for the Scrapie flock certification and regulatory programs.</p> <p>Participants will learn about the APHIS physical network (hardware and software), and how the Animal Health and Surveillance Management (AHSM) web-based database interface and network provide security data held in a national repository. They will also learn the terminology and basic concepts of the relational database model, and how the GDB implements this model.</p> <p>Participants will become familiar with navigation and data entry for both the Scrapie database as well as the system for submitting laboratory submission forms electronically.</p> <p>Throughout this course the participants will also learn how to access data stored in the database, use worksheets to manage program tasks, and generate reports.</p>		
Target Audience	This course is recommended for individuals involved in entering and managing data used to manage the national Scrapie certification and regulatory programs (Scrapie data entry clerks, Epidemiologists, program managers.).		
Prerequisites	None		
Cost	Travel costs only		
Contact	Michael Durham, VS/CEAH, (970) 494-7295 Dr. Steve Bengtson, VS/CEAH, (970) 494-7299		
Nominations	Nominations are to be sent to the Regional Director’s Office. The Regional Office will forward the nominations to CEAH.		
Nomination Deadline	To Region:	November 3, 2006 {December course} April 6, 2007 {May course}	
	To CEAH:	November 17, 2006 {December course} April 20, 2007 {May course}	

***Emergency Management Response System (EMRS) –  
Administrative Module***

***February 6 - 7, 2007***

<b>Location</b>	Ft. Collins, Colorado
<b>Course Purpose</b>	<p>The EMRS is a web-based task management system designed to automate many of the tasks routinely associated with animal disease outbreaks and emergencies. It is used for routine reporting of foreign animal disease (FAD) and emerging disease incident (EDI) investigations, state specific disease outbreaks and control programs, classic national Animal Health Emergency responses, and natural disasters involving animals.</p> <p>Only authorized personnel in a specific state or with a definite "need-to-know" are given either "input/edit" or "read-only" access to a specific EMRS database. These personnel can be USDA, APHIS, VS employees, State animal health officials, or temporary hires. Information is managed in the EMRS, using "views" of the data, by field investigators, as well as by administrative, investigation, and other task managers. EMRS can be exported for use with other applications, for reporting, and data analyses.</p> <p>The purpose of this class will be to train personnel how to use the Administration Module at the Area Office, Region, Laboratory, and Emergency Management in Riverdale and, for the Incident Command System management personnel, during an emergency response. The class will learn how to log into the system, input data, and how to get information out of EMRS to accomplish their specific responsibilities. This class includes an introduction to the Investigation and Tasking Modules.</p>
<b>Target Audience</b>	This EMRS class will be geared towards administrative personnel. This class will give participants a detailed overview of the administrative module of EMRS and a general overview of the investigation and tasking modules.
<b>Prerequisites</b>	None.
<b>Cost</b>	Travel costs only
<b>Contact</b>	Sherri Wainwright, VS/CEAH, (970) 494-7318 Fred Bourgeois, VS/CEAH, (318) 288-4083
<b>Nominations</b>	Nominations are to be sent to the Regional Director's Office. The Regional Office will forward the nominations to CEAH.
<b>Nomination Deadline</b>	To Region: December 22, 2006  To CEAH: January 5, 2007

***Workshop on the Fundamentals of Risk Analysis  
for Decision Makers and Technical Risk Analysts***

***March 6 - 8, 2007***

<b>Location</b>	Ft. Collins, Colorado
<b>Course Purpose</b>	<p>The primary focus of this 3-day workshop is to introduce the fundamentals of risk analysis from the perspectives of both decision makers and technical risk analysts. Participants will discuss the fundamentals of risk analysis, how it is conducted and how it can be used effectively in evaluating trade-related animal health risks and making regulatory decisions. The workshop will consist of two parts: (1) a non-technical but extensive overview of the risk analysis process and (2) an in-depth technical discussion of quantitative risk analysis, probability and probability distributions.</p> <p>The non-technical part will be given on the first day of the course and should take up to 5 hours followed by a 2 hour informal discussion. Decision makers and those who are interested in how to use risk analysis results to make more informed decisions will benefit the most from this part of the course and may continue to attend the technical part of the course only if they wish to do so.</p> <p>The technical part of the workshop will take 2 days and is independent of the non-technical part of the first day so that participants may chose to attend either parts or both parts of the course. The technical part covers (1) how to conduct a quantitative risk analysis and evaluate it critically, (2) the fundamental laws of probability on which risk analysis is based, and (3) probability mass and probability distribution functions and how they are used to model data and expert opinions in a risk analysis model. Real life examples will be presented and discussed throughout the course from, formulating the problem to running the model using @Risk software and to interpreting results.</p>
<b>Target Audience</b>	Decision makers and intermediate to technical risk analysts.
<b>Prerequisites</b>	None
<b>Cost</b>	Travel only
<b>Contact</b>	Ziad Malaeb, Ph.D. (A.B.D), VS/CEAH, (970) 494-7288
<b>Nominations</b>	Nominations are to be sent to the Regional Director's Office. The Regional Office will forward the nominations to CEAH.
<b>Nomination Deadline</b>	To Region: January 26, 2007  To CEAH : January 31, 2007



<b>Generic Data Base – Advanced Discoverer Queries for Data Retrieval</b>		<b>March 6 - 7, 2007</b> <b>July 10 - 11, 2007</b> <b><i>New Date and Location! August 7 – 9, 2007</i></b>
<b>Location</b>	Ft. Collins, Colorado {March and July courses} Raleigh, North Carolina {August course}	
<b>Course Purpose</b>	Participants will learn advanced query design and data retrieval techniques using Discoverer. Topics to be covered include using nested logical operators, planning data retrieval, and using Discoverer as a troubleshooting tool.	
<b>Target Audience</b>	Federal and State personnel who are already trained in basic Discoverer data retrieval techniques.	
<b>Prerequisites</b>	Disco1 and GDBPM.  This advanced course on Oracle Discoverer requires basic knowledge of how to create and modify queries using Oracle Discoverer. It also requires that participants be familiar with the standard GDB Headquarters Reports which are discussed in detail in the GDBPM training.	
<b>Cost</b>	Participants pay travel and hotel.	
<b>Contact</b>	Michael Durham, VS/CEAH, (970) 494-7295	
<b>Nominations</b>	Nominations are to be sent to the Regional Director's Office. The Regional Office will forward the nominations to CEAH.	
<b>Nomination Deadlines</b>	To Region:                      January 26, 2007 {March course} June 1, 2007 {July course} July 10, 2007 {August course}  To CEAH:                          January 31, 2007 {March course} June 8, 2007 {July course} July 17, 2007 {August course}	

<b>Location</b>	Ft. Collins, Colorado
<b>Course Purpose</b>	<p>The EMRS is a web-based task management system designed to automate many of the tasks routinely associated with animal disease outbreaks and emergencies. It is used for routine reporting of foreign animal disease (FAD) and emerging disease incident (EDI) investigations, state specific disease outbreaks and control programs, classic national Animal Health Emergency responses, and natural disasters involving animals.</p> <p>Only authorized personnel in a specific state or with a definite "need-to-know" are given either "input/edit" or "read-only" access to a specific EMRS database. These personnel can be USDA, APHIS, VS employees, State animal health officials, or temporary hires. Information is managed in the EMRS, using "views" of the data, by field investigators, as well as by administrative, investigation, and other task managers. EMRS can be exported for use with other applications, for reporting, and data analyses.</p> <p>This course will include EMRS Advanced Training in workflow management techniques used during an Emergency Response, including using combinations of zone statuses and premises visits forms. Advanced data management, data extraction and manipulation, forecasting and report generation will be covered. New toolsets, such as Intelliview for the Lotus Notes client and the Web will be covered in detail.</p> <p>Candidates should be prepared for interactive training, to provide input in areas where they have extensive taskforce experience and to be able to continue learning advanced techniques to be prepared to serve as Situation Unit Leader (SUL) / Disease Reporting Officer's (DROs) or Epidemiology (EPI) Lead, fully utilizing EMRS to manage the emergency response.</p>
<b>Target Audience</b>	Candidates will be expected to have a good working knowledge of all parts of EMRS and should have some previous experience at Taskforce levels with EMRS or a strong computer background and EMRS experience, as no entry level training will be covered.
<b>Prerequisites</b>	Please see "Target Audience" description above.
<b>Cost</b>	Travel costs only
<b>Contact</b>	Sherri Wainwright, VS/CEAH, (970) 494-7318 Fred Bourgeois, VS/CEAH, (318) 288-4083
<b>Nominations</b>	Nominations are to be sent to the Regional Director's Office. The Regional Office will forward the nominations to CEAH.
<b>Nomination Deadlines</b>	<p>To Region: March 23, 2007</p> <p>To CEAH: March 30, 2007</p>

<b>Location</b>	Ft. Collins, Colorado				
<b>Course Purpose</b>	Participants will learn how Veterinary Service's geospatial applications are used in surveillance, epidemiological analysis, and planning disease management strategies during an incident response. Participants will learn how to collect and validate spatial data from field locations using global position system (GPS) methods, address geocoding techniques, and GPS-embedded digital photography. In addition, participants will learn how to conduct epidemiological analyses using the EMRS Mapping Module, and selected geographic information system (GIS) applications for non-specialists. The application of spatial models in epidemiological assessments will be studied through use of VS' Farm Animal Demographics Simulator. Participants will learn how to access and use spatial data in the VS Atlas Spatial Data Library of Animal Health Information for analysis and incident planning. Also, participants will learn how to use the Map Kiosk and SmartBoard tools which have been developed for use by epidemiologists and incident managers.				
<b>Target Audience</b>	This course is intended for disease program managers, analytical epidemiologists, area epidemiologists, surveillance specialists, program analysts, GIS specialists, incident managers, and others who would like to learn how to use the geospatial tools developed by Veterinary Services.				
<b>Prerequisites</b>	None				
<b>Cost</b>	Travel costs only				
<b>Contact</b>	Priscilla FitzMaurice, VS/CEAH, (970) 494-7277				
<b>Nominations</b>	Nominations are to be sent to the Regional Director's Office. The Regional Office will forward the nominations to CEAH.				
<b>Nomination Deadline</b>	<table><tr><td>To Region:</td><td>March 30, 2007 {May course} August 10, 2007 {September course}</td></tr><tr><td>To CEAH:</td><td>April 6, 2007 {May course} August 17, 2007 {September course}</td></tr></table>	To Region:	March 30, 2007 {May course} August 10, 2007 {September course}	To CEAH:	April 6, 2007 {May course} August 17, 2007 {September course}
To Region:	March 30, 2007 {May course} August 10, 2007 {September course}				
To CEAH:	April 6, 2007 {May course} August 17, 2007 {September course}				

***Emergency Management Response System – Training for Routine  
FAD/EDI Investigations and Introduction to Admin and Tasking Modules***

The EMRS FAD course will now be on a CD. New Introductory EMRS and EMRS for FADDs Training courses will soon be available. Once completed, the distribution and point of contact will be posted to the VS Training Catalog. It was determined that course content may be best delivered on CD and possibly on AgLearn to increase participation, decrease travel cost, and allow individual paced instruction. Classroom training for Advanced EMRS will continue and the Introductory EMRS will be required as a prerequisite once available. The Advanced EMRS course, May 1<sup>st</sup> – 3<sup>rd</sup>, will include a one-day refresher for EMRS and a two-day outbreak scenario interactive practice session. If the Introductory EMRS training course is not made available before May, the prerequisite may be completed by reviewing the current user documentation on the EMRS Welcome Page help links for the Investigative and Administrative modules.

<b>Course Purpose</b>	<p>The EMRS is a web-based task management system designed to automate many of the tasks routinely associated with the animal disease outbreaks and emergencies. It is used for routine reporting of foreign animal disease/emerging disease incident (FAD/EDI) investigations, state specific disease outbreaks and control programs, classic national Animal Health Emergency responses, and natural disasters involving animals.</p> <p>Only authorized personnel in a specific state or with a definite "need-to-know" are given either "input/edit" or "read-only" access to a specific EMRS database. These personnel can be USDA, APHIS, VS employees, State animal health officials, or temporary hires. Information is managed in the EMRS using views for the field investigator, Area Office, Region, Laboratory, Emergency Management in Riverdale and, for the Incident Command System management personnel, during an emergency response. The data entered into EMRS can be exported for use with other applications, for reporting, and data analyses.</p> <p>The purpose of this class will be to train personnel how to use EMRS for FAD/EDI Investigations, including how to log into the system, input data, and how to get information out of EMRS to accomplish their specific responsibilities. It will give participants a detailed overview of the Investigation module of EMRS and a general overview of the Administrative and Tasking investigation module.</p>
<b>Target Audience</b>	This EMRS class will be geared towards the VMO's and other field emergency response personnel responsible for reporting Routine FAD/EDI Investigations.
<b>Prerequisites</b>	None
<b>Cost</b>	Travel only
<b>Contact</b>	<p>Sherri Wainwright, VS/CEAH, (970) 494-7318</p> <p>Fred Bourgeois, VS/CEAH, (318) 288-4083</p>

<i>SpreadModel</i>		<i>New Date! August 7 – 9, 2007</i>	
Location	Ft. Collins, Colorado		
Course Purpose	To familiarize participants with the disease simulation model, SpreadModel, with a focus on Foot and Mouth Disease. The course will include detailed descriptions of model inputs, calculations and outputs. It will focus on information the user will need to enter, and appropriate interpretation of results. Exercises during class will help participants to understand how the model can help in efforts to prepare and educate individuals about spread of a foreign animal disease through animal populations.		
Target Audience	Epidemiologists, emergency coordinators, decision makers with an interest in knowing more about the model		
Prerequisites	None		
Cost	Travel costs only		
Contact	Barbara Corso, VS/CEAH, <a href="mailto:Barbara.A.Corso@aphis.usda.gov">Barbara.A.Corso@aphis.usda.gov</a>		
Nominations	Nominations are to be sent to the Regional Director’s Office. The Regional Office will forward the nominations to CEAH.		
Nomination Deadline	To Region:	April 20, 2007	
	To CEAH:	May 11, 2007	



## NOMINATION REQUEST

**PLEASE PRINT CLEARLY**

**COURSE TITLE:** \_\_\_\_\_

**DATE OF THE COURSE:** \_\_\_\_\_

1. Participant's name, social security number, mailing address, phone and fax number, and e-mail address:

\_\_\_\_\_  
(Dr. Mr. or Ms.) Name Social Security Number

\_\_\_\_\_  
Mailing address (street, city, state, and zip code)

\_\_\_\_\_  
Phone number Fax number E-mail address

2. Job Title: \_\_\_\_\_

3. Participants Official Duty Station: \_\_\_\_\_

4. Estimated costs (This information is needed for the preparation for the Quarterly Travel Plan):

No. of days for per diem: \_\_\_\_\_

POV (need # of miles round trip): \_\_\_\_\_

Miscellaneous expenses (round trip estimates): \_\_\_\_\_  
{shuttle, parking, taxi, etc.}

Common carrier fare: \_\_\_\_\_

Method of purchase for common carrier (GTR, GVTS, CC, etc.): \_\_\_\_\_

GOV (Check if this mode of transportation will be used): \_\_\_\_\_

Car Rental: \_\_\_\_\_

5. Method of Transportation: \_\_\_\_\_

6. Supervisor's signature for approval: \_\_\_\_\_

7. Region's approval: \_\_\_\_\_

**PLEASE FAX TO THE REGIONAL OFFICE. THE REGIONAL OFFICE WILL FAX TO THE NOMINATIONS CONTACT PERSON NOTED AT THE END OF EACH COURSE DESCRIPTION.**





**United States  
Department of  
Agriculture**

**Animal and  
Plant Health  
Inspection Service**

**Veterinary  
Services**

**National Veterinary  
Services Laboratories**

# Training Courses

**Provided by the**

**National  
Veterinary  
Services  
Laboratories**



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# TRAINING COURSES AT THE NATIONAL VETERINARY SERVICES LABORATORIES

(For FISCAL YEAR 2007 – October 1, 2006 – September 30, 2007)

Some courses may require additional fees for special supplies and equipment. \*Fees are subject to change.

COURSE TITLE	LENGTH	DATES	COST – FY 2006 Prices	PAGE NO.
Anaplasmosis Complement-Fixation Test	4 ½ days	January 8-12, 2007	\$1,489.50	13
<i>Brucella abortus</i> Complement-Fixation Test	4 ½ days	January 8-12, 2007	\$1,489.50	13
Avian Influenza (AI) Virus Isolation, Subtyping, and Agar Gel Immunodiffusion	5 days	April 9-13, 2007	\$1,655	22
Bluetongue (BT) and Epizootic Hemorrhagic Disease (EHD) Virus Isolation	5 days	January 29 – February 2, 2007 Or As Scheduled	\$1,655	24
Bovine/Porcine Virus Isolation Techniques	2 days or 5 days	February 15-16, 2007 September 10-14, 2007	\$662 or \$1,655	25
<i>Brucella</i> Isolation and Identification	5 days	January 22-26, 2007	\$1,655	10
<i>Brucella</i> Reagent Production	5 days	January 29 - February 2, 2007	\$1,655	12
Complement-Fixation Test	4 ½ days	January 8-12, 2006	\$1,489.50	13
Equine Infectious Anemia (EIA) Agar Gel Immunodiffusion (AGID) and Enzyme-Linked Immunosorbent Assay (ELISA) Laboratory Methods	1 ½ days	As Scheduled	\$496.50	26
Equine Viral Arteritis (EVA) Virus Neutralization (VN)	2 days 2 days	April 19 & 22, 2007 Or As Scheduled	\$662 \$662	27
Fluorescent Antibody (FA) Conjugate Production	5 days	April 2-6, 2007	\$1,655	28
Foreign Animal Diseases	Varies	As scheduled	\$450/day*	44
Hemagglutinating Encephalomyelitis Hemagglutination-Inhibition (HI) Test	1 day	April 4, 2007	\$331	29
Johne's Complement-Fixation Test	4 ½ days	January 8-12, 2007	\$1,489.50	13
Johne's Isolation and Identification	4 days	April 9-12, 2007	\$1,324	14
<i>Leptospira</i> Microscopic Agglutination	2 days	As scheduled	\$662	16
<i>Mycobacteria</i> Isolation and Identification	10 days	March 26 - April 6, 2007	\$3,310	18
Newcastle Disease (ND) Virus Isolation and Serology	5 days	October 16-20, 2006	\$1655	30
Paratuberculosis (Johne's) Complement-Fixation Test	4 ½ days	January 8-12, 2007	\$1489.50	13
Porcine Parvovirus (PPV) Hemagglutination-Inhibition (HI) Test	2 days	May 3-4, 2007	\$662	32
Porcine Reproductive and Respiratory Syndrome (PRRS) Indirect Fluorescent Antibody (IFA) Test	2 day	April 18-19, 2007	\$662	33
Pseudorabies (PR) Virus Neutralization Test	3 days	On Request	Non-Billable	34
Pseudorabies (PR) Virus Enzyme-Linked Immunosorbent Assay (ELISA) and Latex Agglutination Test	2 days	On Request	Non-Billable	35
Swine Influenza (SI) Hemagglutination-Inhibition (HI) Test	2 days	March 8-9, 2007	\$662	36
Vesicular Stomatitis (VS) Virus (New Jersey and Indiana Serotypes) Complement-Fixation Test	2 days	April 16-17, 2007	\$662	37
Vesicular Stomatitis (VS) Virus (New Jersey and Indiana Serotypes) Virus Neutralization Test	3 days	April 18-20, 2007	\$993	38

- An application for training should be submitted as soon as possible, but no later than 2 months before the course.
- For specialized training or training not listed, contact the Training Office

Email: [Daniel.J.Grause@aphis.usda.gov](mailto:Daniel.J.Grause@aphis.usda.gov) or [Denise.L.Macdonald@aphis.usda.gov](mailto:Denise.L.Macdonald@aphis.usda.gov)

Phone: (515) 663-7300/7475 FAX: (515) 663-7332



In response to requests from our customers for more specific information on diagnostic training to protect the health of animals, the National Veterinary Services Laboratories (NVSL) is pleased to provide you with this catalog which outlines some of the training courses provided by the NVSL. We hope this catalog will be helpful to you in identifying your training needs and in determining how the NVSL can assist you in meeting those needs.

While a number of courses are listed, this catalog is not all inclusive as we do provide training in other diseases. Feel free to contact us regarding your training requirements, and the NVSL will be glad to customize training to meet your specific needs. For information on the daily rate for training in Ames, Iowa and Greenport, New York, contact the NVSL training office below.

Requests for training or for more information on training should be sent to:

TRAINING OFFICE  
NATIONAL VETERINARY SERVICES LABORATORIES  
P.O. BOX 844  
AMES, IA 50010

The NVSL Training Office can be reached by e-mail at [NVSL.Training@aphis.usda.gov](mailto:NVSL.Training@aphis.usda.gov), by phone at (515) 663-7300/7475, or by fax at (515) 663-7332.

Information can also be accessed through the Internet at [www.aphis.usda.gov/vs/nvsl/](http://www.aphis.usda.gov/vs/nvsl/).

Let us know how we can meet your training needs.





## **Mission and History of the National Veterinary Services Laboratories**

**MISSION: TO PROTECT THE HEALTH OF ANIMALS AND CONTRIBUTE TO PUBLIC HEALTH BY PROVIDING TIMELY, ACCURATE, AND RELIABLE LABORATORY SUPPORT TO OUR CUSTOMERS.**

The National Veterinary Services Laboratories (NVSL) performs animal disease testing for Veterinary Services (VS) and is the only laboratory system in the Animal and Plant Health Inspection Service (APHIS) dedicated to the testing of diagnostic specimens for diagnosis of domestic and foreign animal diseases. The NVSL provides analytical services, disseminates scientific information, conducts developmental activities, and provides training for APHIS programs. It also works closely with APHIS' International Services to provide consultation, reagents, and training for foreign governments. Laboratory support services are provided for many APHIS programs. [Specific responsibilities of the individual laboratories are listed on pages 11, 25, 55, and 57.] The NVSL works closely with VS specialists in program development and program monitoring, and personnel are active on many animal health organization committees. NVSL clients and stakeholders include private, state, Federal, university and various diagnostic laboratories, and other groups, both domestic and international.

**HISTORY:** The origin of the NVSL can be traced to the Bureau of Animal Industry (BAI). Some of the significant events include:

**1961** – Opening of the National Animal Disease Laboratory (NADL) at Ames, Iowa. The original organizational structure provided for a Director and Assistant Director for Research and an Assistant Director for Regulatory Laboratories. The Regulatory Laboratories were assigned 20 percent of the space and were to provide diagnostic services for the Animal Disease Eradication Division. Within a few years, reorganization resulted in three independent units for research, biologics, and diagnostics.

**1971** – The Animal Health Division laboratory facilities in Beltsville, Maryland, were assigned to the Diagnostic Services group.

**1972** – The Animal and Plant Health Inspection Service (APHIS) was formed as an Agency of the USDA. Diagnostic Services was a part of this Agency.

**1973** – The Diagnostic Services Laboratory and the Biologics Laboratory were combined into one and named the Veterinary Services Laboratories.

**1977** – The name of the laboratory was changed to NVSL. Growth and planning for construction of a new facility continued.

**1978** – Phase I of the NVSL central facility was completed. The biologics laboratory personnel along with administrative services and support personnel moved into the new facility. Personnel from Beltsville along with their testing responsibilities moved to Ames.

**1984** – Diagnostic activities at the Plum Island Animal Disease Center, Plum Island, New York, were transferred to APHIS and made a part of the NVSL. The diagnostic laboratory was named Foreign Animal Disease Diagnostic Laboratory (FADDL).

**1996** – The NVSL's focus is exclusively on diagnostic activities due to the transfer of biologics testing responsibility to the Center for Veterinary Biologics. The eventual goal is to house all diagnostic personnel at the NVSL Central.

## GENERAL INFORMATION

### Nomination Procedure

Refer to the course outlines as some training requires the approval of the Federal and/or State Veterinarian in your state. All requests for training should be sent to:

Director's Office  
USDA, APHIS, VS  
National Veterinary Services  
Laboratories (NVSL)  
P.O. Box 844  
Ames, IA 50010

### Register Early

Mail or fax your registration early but no later than 2 months prior to the course to assure availability.

### Telephone Registration

Registration will not be accepted by telephone; however, registrations sent by fax to (515) 663-7332 will be accepted if authorizing signature is included.

### Confirmation Notification by the NVSL

A letter confirming receipt of the nomination will be sent to the individual submitting the request. Approximately 1 month before the course, an informational packet containing specific materials on the course will be sent directly to the trainee. The packet will contain an agenda, specifics on the course, an invoice, logistical details on motels and transportation to Ames, etc., a form to be returned to the NVSL to confirm attendance, and any other appropriate information.

### Confirmation and Payment by the Trainee

The informational packet will contain a confirmation form that should be returned by the trainee as soon as possible but no later than the date indicated on the form. The full tuition payment is due at this time. Payment can be made by VISA, MasterCard, check, or money order (U.S. dollars payable to the USDA, APHIS). Instructions for paying the tuition will be included in the informational packet.

### Substitutions

We encourage substitutions if you cannot attend a course. Employers may substitute another participant until the beginning of the course.

### Withdrawals

You may withdraw from the class up to 2 weeks before the course begins with a full refund of tuition. After that date, refunds will be reduced by 1 day's tuition. Substitutions will be accepted up until the beginning of the course with no change to the tuition.

### Accessibility

Participants needing special arrangements due to visual, hearing, or mobility impairment should contact the NVSL Training Office at least 4 weeks before the course to discuss specific needs and accommodations.

### Interpreters

All courses are taught in English. The trainee must provide his/her own interpreter if one is needed.

### Transportation/Housing

Participants are responsible for making their own travel arrangements and paying for their own costs for transportation, housing and food. The NVSL will provide appropriate information on motels and transportation along with the course information prior to the course. Assistance will also be provided in making motel reservations.

### Purchasing Reagents

Unless otherwise indicated by the course outline, reagents for use during the course will be provided. If you want to purchase any reagents to take with you after the course, **arrangements must be made prior to the course.** Costs for reagents going to foreign countries must be prepaid. A Department of Commerce license may be required for reagents leaving the country. In addition, either a permit for importation into the receiving country or a letter from the foreign Ministry of Agriculture stating that a permit is not necessary is also required. For information on purchasing reagents, call (515) 663-7571, or fax (515) 663-7402.

### Equal Opportunity

Training will be provided without discrimination for any nonmerit reason such as race, color, religion, sex, national origin, age, marital status, physical or mental handicap, or membership or nonmembership in an employee organization.

To contact the NVSL Training office

by email: NVSL Training@aphis.usda.gov  
by phone: (515) 663-7300/7475  
by fax: (515) 663-7332

## NVSL APPLICATION FOR LABORATORY TRAINING

<b>1. Name and Address of Applicant (Please type or print)</b>				
(Dr., Mr., Mrs., Ms.)		(Last)		(First) (M.I.)
Office Address				
City State Zip Code				Country
Telephone: Office: ( )			FAX: ( )	
E-Mail Address:				
<b>2. Training Desired</b>				
Course Name			Date (If known)	Cost
<b>3. Employer</b>				
Organization				
Division/Unit				
Local Address				
			City	State Zip Code
<b>4. Professional Status</b>				
Occupation		Position Title		Specialty
Brief description of your previous experience or training in conducting the requested test(s)				
<b>5. Signatures</b>				
Applicant's Signature			Date	
Authorizing Official's Signature			Date	
Name/Title of Authorizing Official (Print or Type)			Phone Number	



## OVERVIEW OF THE DIAGNOSTIC BACTERIOLOGY LABORATORY (DBL)

The DBL provides assistance to state, Federal, university, and foreign laboratories through the isolation and identification of pathogenic bacteria from animal tissues and fluids and through serologic examination for evidence of exposure to diseases caused by bacteria, fungi, and protozoa. Laboratory support is provided for brucellosis, tuberculosis, *Salmonella enteritidis*, horse importation, and other programs such as the National Animal Health Monitoring System by the following sections:

### **Bacterial Identification Section**

- Zoonotic Agent Isolation and Identification
- *Salmonella spp.* Isolation and Serotyping
- *Leptospira* and Poultry *Mycoplasma* Reagents
- *Salmonella* and *Typhlorella* Reference Laboratories
- *Pasturella Multocida* Typing and Reagents

### **Brucella & Mycobacterium Reagents Team**

- *Brucella* & *Mycobacterium* Reagent Production
- *B. abortus* Strain 19 World Health Organization Reference (Seed)
- Proficiency Testing Reagents and Panels

### **Mycobacteria and Brucella Section**

- *Brucella* and *Mycobacteria* Isolation & Identification
- Proficiency Testing of State Laboratories for Johnes Disease and Brucellosis
- Johnes's Disease Isolation and Identification

### **Serology Section**

- Brucellosis Program Testing
- Import/Export Program Testing
- Proficiency Test of State Laboratories
- Tuberculosis and *Brucella spp.* Serum Banks

### **Technical Support Section**

- Prepares/sterilizes all bacterial, viral, and other media, buffers, and solutions
- Maintains 900 computerized formulations for media and solutions
- Cleans and provides special treatment to glassware and other laboratory instruments

## **COURSES OFFERED**

◆ Anaplasmosis Complement-Fixation Test.....	13
◆ <i>Brucella abortus</i> Complement-Fixation Test.....	13
◆ <i>Brucella</i> Isolation and Identification.....	10
◆ <i>Brucella</i> Reagent Production.....	12
◆ Complement-Fixation Test.....	13
◆ Johnes's Complement-Fixation Test.....	13
◆ Johnes's Isolation and Identification.....	14
◆ <i>Leptospira</i> Microscopic Agglutination Test.....	16
◆ <i>Mycobacteria</i> Isolation and Identification.....	18
◆ Paratuberculosis (Johnes's) Complement-Fixation Test.....	13



<b>Description</b>	This training will provide practical hands-on experience enabling participants to process tissue specimens for the isolation and identification of <i>Brucella spp.</i>
<b>Objectives</b>	<p>At the conclusion of this training, participants will be able to perform the following skills:</p> <ul style="list-style-type: none"><li>• Process tissue, milk, and blood specimens for the isolation of <i>Brucella spp.</i></li><li>• Identify the colonial morphology of <i>Brucella</i> on various media</li><li>• Obtain pure cultures of <i>Brucella</i> and perform various biochemical tests required for identification</li><li>• Interpret the biochemical results and identify the species and biovars of the genus <i>Brucella</i></li><li>• Obtain a basic understanding of the procedures used in a Biosafety Level III laboratory</li></ul>
<b>Topics to be Covered</b>	<p>The following laboratory sessions will be provided:</p> <p>Demonstrations and hands-on laboratory activities including:</p> <ul style="list-style-type: none"><li>• Processing various animal specimens including tissue, milk, blood, and swabs</li><li>• Sample preparation</li><li>• Biochemical tests required for the isolation of <i>Brucella</i></li><li>• Observing bacterial growth characteristics</li><li>• Cellular morphology</li><li>• Biotyping various species of <i>Brucella</i></li><li>• Media used</li><li>• Identifying unknowns</li></ul> <p>Lectures and/or discussions will include:</p> <ul style="list-style-type: none"><li>• Clinical and epidemiological aspects of bovine brucellosis</li><li>• Interpretation of atypical biochemical results</li><li>• Laboratory safety</li><li>• Trouble shooting</li><li>• Emerging technologies</li><li>• Animal inoculations</li><li>• Quality assurance</li></ul>

*(continued on next page)*

	Demonstrations and tours (optional): <ul style="list-style-type: none"> <li>• NVSL/DBL – Media preparation laboratory</li> <li>• NVSL/PL – Pathobiology Laboratory</li> <li>• NADC – Brucellosis Laboratory</li> <li>• ISU – Pathology and Microbiology</li> </ul>
<b>Target Audience</b>	Technicians, technologists, microbiologists, laboratory supervisors, laboratory trainers other scientists who desire current knowledge of the brucellosis diagnostic procedures. Class is limited to 2 trainees.
<b>Time Requirements</b>	5 days
<b>Restrictions</b>	The training is conducted in a Biosafety Level III laboratory that requires a brucellosis blood test before admittance. Laboratory clothing will be provided for use during this course. Persons who are immunocompromised or immunosuppressed may be at risk of acquiring infections.
<b>Contact Person</b>	For technical information: Head, Mycobacteria and Brucella Section Diagnostic Bacteriology Laboratory (515) 663-7676  For logistical information: NVSL Training Office (515) 663-7300/7475



<b><i>Brucella</i> Reagent Production</b>		<b><i>January 29 – February 2, 2007</i></b>
<b>Description</b>	This training will provide information and experience necessary for participants to propagate, process, standardize, and evaluate <i>Brucella abortus</i> cells and antigens.	
<b>Objectives</b>	To produce and evaluate antigens for the detection of antibodies to <i>B. abortus</i> .	
<b>Topics to be Covered</b>	<p>Overview of antigen production and evaluation including:</p> <ul style="list-style-type: none"> <li>• Background information on the various antigens produced and their applications in laboratory and field settings</li> <li>• Preparation of seed stock</li> <li>• Propagation of cells on solid and in liquid media</li> <li>• Purity and dissociation of cells repairing dyes and straining cells</li> <li>• Standardization of cell concentration</li> <li>• Sterility testing</li> <li>• Serologic evaluation of antigens</li> </ul>	
<b>Target Audience</b>	Technicians, technologists, microbiologists, laboratory supervisors, laboratory trainers other scientists who desire current knowledge of the <i>brucella</i> reagent production. Class size limited to 2.	
<b>Time Requirements</b>	5 days	
<b>Contact Person</b>	<p>For technical information:      Leader, Brucella &amp; Mycobacterium Reagents Team Diagnostic Bacteriology Laboratory (515) 663-7981</p> <p>For logistical information:      Training Office (515) 663-7300/7475</p>	

<i>Complement-Fixation Test [Anaplasmosis, Brucella Abortus, and/or Paratuberculosis (Johne's)]</i>		<i>January 8 - 12, 2007</i>
<b>Description</b>	This is a hands-on training course that provides the opportunity for participants to learn the complement-fixation technique for the detection of antibodies against anaplasmosis, brucellosis, and/or paratuberculosis (Johne's).	
<b>Objective</b>	Participants will review and update their knowledge of the complement-fixation test by observing and practicing specific techniques for the detection of antibodies against anaplasmosis, brucellosis, and/or paratuberculosis (Johne's).	
<b>Topics to be Covered</b>	Testing procedures including: <ul style="list-style-type: none"><li>• Complement-fixation principles</li><li>• Hemolysin titrations</li><li>• Complement titrations</li><li>• Complement-fixation tests for anaplasmosis, brucellosis, and/or paratuberculosis (Johne's)</li></ul>	
<b>Target Audience</b>	Diagnostic laboratory technicians, supervisors, and epidemiologists. Class size is limited to 6.	
<b>Time Requirements</b>	4½ days	
<b>Contact Person</b>	For technical information:      Head, Serology Section Diagnostic Bacteriology Laboratory (515) 663-7565  For logistical information:      Training Office (515) 663-7300/7475	

<i>Johne's Isolation and Identification</i>		<i>April 9 – 12, 2007</i>
<b>Description</b>	This training will provide practical hands-on experience enabling participants to process fecal or tissue specimens for the isolation and identification of <i>Mycobacterium paratuberculosis</i> .	
<b>Objective</b>	<p>Upon successful completion of this course, the student will be able to:</p> <ul style="list-style-type: none"> <li>• Indicate the current significant epidemiological trends of paratuberculosis in the United States</li> <li>• Demonstrate laboratory practices for safely working with <i>mycobacteria</i></li> <li>• Discuss important aspects of quality assurance</li> <li>• Discuss specimen collection and transport</li> <li>• Perform acid-fast microscopy</li> <li>• Perform specimen processing</li> <li>• Discuss effective communication with clinicians</li> <li>• Discuss reporting laboratory results</li> <li>• Perform the IDEXX <i>M. paratuberculosis</i> DNA test kit</li> <li>• Describe new testing methods giving applications and limitations</li> </ul>	
<b>Topics to be Covered</b>	<p>Laboratory sessions include the following demonstrations and hands-on laboratory activities:</p> <ul style="list-style-type: none"> <li>• Processing fecal and tissue specimens</li> <li>• Sample preparation</li> <li>• Ziehl-Neelsen stain procedures</li> <li>• Observing bacteriological growth characteristics</li> <li>• Media used</li> <li>• Using DNA probes</li> <li>• Identifying unknowns</li> </ul> <p>Lectures/Discussions Include:</p> <ul style="list-style-type: none"> <li>• Clinical and epidemiological aspects of paratuberculosis</li> <li>• Test interpretations</li> <li>• Laboratory safety</li> <li>• Quality assurance</li> <li>• Trouble shooting</li> <li>• Emerging technologies</li> </ul>	

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	<p>Demonstration and tours (optional)</p> <ul style="list-style-type: none"> <li>• NVSL-DBL media laboratory</li> <li>• NADC paratuberculosis laboratory and library</li> <li>• NVSL-DBL serology laboratory</li> <li>• ISU paratuberculosis laboratory and library</li> </ul>
<b>Target Audience</b>	Technicians, technologists, microbiologists, laboratory supervisors, laboratory trainers and/or other scientists who desire current knowledge of the Johne's diagnostic procedures. Class is limited to 4 trainees.
<b>Time Requirements</b>	4 days
<b>Contact Person</b>	<p>For technical information:      Head, Mycobacteria and Brucella Section Diagnostic Bacteriology Laboratory (515) 663-7676</p> <p>For logistical information:      Training Office (515) 663-7300/7475</p>





<i>Mycobacteria Isolation and Identification</i>		<i>March 26 – April 6, 2007</i>
<b>Description</b>	This training will provide practical hands-on experience enabling participants to process tissue specimens for the isolation and identification of <i>Mycobacterium bovis</i>	
<b>Objective</b>	<p>Upon successful completion of this course, the student will be able to:</p> <ul style="list-style-type: none"> <li>• Indicate the current significant epidemiological trends of bovine tuberculosis in the United States</li> <li>• Demonstrate laboratory practices for safely working with <i>mycobacteria</i></li> <li>• Discuss important aspects of quality assurance</li> <li>• Discuss specimen collection and transport</li> <li>• Perform acid-fast microscopy</li> <li>• Perform specimen processing</li> <li>• Discuss effective communication with clinician</li> <li>• Discuss reporting laboratory results</li> <li>• Perform Gen Probe <i>M. tuberculosis</i> complex DNA test kit</li> <li>• Describe new testing methods giving applications and limitations</li> </ul>	
<b>Topics to be Covered</b>	<p>Laboratory sessions include the following demonstrations and hands-on laboratory activities:</p> <ul style="list-style-type: none"> <li>• Processing tissue specimens</li> <li>• Sample preparations</li> <li>• Ziehl-Neelsen stain procedures</li> <li>• Observing bacteriological growth characteristics</li> <li>• Media used</li> <li>• Using DNA probes</li> <li>• Identifying unknowns</li> <li>• Using Bactec media</li> <li>• Gas chromatography for identifying <i>mycobacteria</i></li> <li>• Drug susceptibility testing</li> <li>• Biochemical tests required for identifying <i>mycobacterial</i> species</li> <li>• Colonial morphology</li> <li>• Cellular morphology</li> </ul>	

(continued on next page)

	<p>Lectures/Discussions include:</p> <ul style="list-style-type: none"> <li>• Clinical and epidemiological aspects of bovine tuberculosis</li> <li>• Test interpretations</li> <li>• Laboratory safety</li> <li>• Quality assurance</li> <li>• Trouble shooting</li> <li>• Emerging technologies</li> <li>• Guinea pig inoculation</li> </ul> <p>Demonstrations and tours (optional)</p> <ul style="list-style-type: none"> <li>• NVSL-DBL media laboratory</li> <li>• NADC tuberculosis laboratory and library</li> <li>• NVSL-PL laboratory</li> </ul>
<b>Target Audience</b>	Technicians, technologists, microbiologists, laboratory supervisors, laboratory trainers or other scientists who desire current knowledge of the bovine tuberculosis diagnostic procedures. Class is limited to 4 trainees.
<b>Time Requirements</b>	10 days:                      5 days – Processing Portion 5 days – Identification Portion
<b>Restrictions</b>	A tuberculin skin test will be administered to trainees on the first day of the class unless they have previously been vaccinated for tuberculosis with BCG vaccine. Trainees will be provided with laboratory clothing which will be worn during the training.
<b>Contact Person</b>	<p>For technical information:      Head, Mycobacteria &amp; Brucella Section  Diagnostic Bacteriology Laboratory  (515) 663-7676</p> <p>For logistical information:      Training Office (515) 663-7300/7475</p>



## OVERVIEW OF THE DIAGNOSTIC VIROLOGY LABORATORY (DVL)

The DVL provides diagnostic support for APHIS programs and foreign animal diseases (FAD) as well as diagnosis of domestic diseases by virus isolation and identification, serologic tests, and electron microscopy. The DVL conducts surveillance, import/export testing, and reference and reagent production. They provide diagnostic assistance in domestic diseases for private, state, Federal, and university laboratories, and train scientists from national and international laboratories.

The DVL is a national reference laboratory for bluetongue (BT), equine infectious anemia (EIA), highly pathogenic avian influenza (HPAI), Newcastle disease (ND), pseudorabies (PR), and vesicular stomatitis (VS) viruses. The DVL is also an Office International des Epizooties reference laboratory for BT, EIA, HPAI, exotic ND, PR, Venezuelan equine encephalomyelitis and VS viruses.

### Avian Viruses Section

- Isolation and Identification of Avian Virus Pathogens
- Reference Laboratory for Highly Pathogenic Avian Influenza and Exotic Newcastle Disease

### Bovine and Porcine Viruses Section

- Isolation and Identification of Bovine and Porcine Viruses, and viruses from aquatic organisms such as fish and shrimp
- Reference Laboratory for Pseudorabies Virus and Vesicular Stomatitis Virus.

### Equine and Ovine Viruses Section

- Isolation of Equine and Small Ruminant Viruses, Equine Encephalomyelitis, and West Nile Virus
- Reference Laboratory for Equine Infectious Anemia, Bluetongue, and Epizootic Hemorrhagic Diseases Viruses

## COURSES OFFERED

◆ Avian Influenza (AI) Virus Isolation, Subtyping, and Agar Gel Immunodiffusion.....	22
◆ Bluetongue (BT) and Epizootic Hemorrhagic Disease (EHD) Virus Isolation.....	24
◆ Bovine/Porcine Virus Isolation Techniques.....	25
◆ Equine Infectious Anemia (EIA) Agar Gel Immunodiffusion (AGID and Enzyme-Linked Immunosorbent Assay (ELISA), Laboratory Methods.....	26
◆ Equine Viral Arteritis (EVA) Virus Neutralization (VN).....	27
◆ Fluorescent Antibody (FA) Conjugate Production .....	28
◆ Hemmagglutinating Encephalomyelitis Hemagglutination-Inhibition (HI) Test .....	29
◆ Newcastle Disease (ND) Virus Isolation and Serology .....	30
◆ Porcine Parvovirus (PPV) Hemagglutination-Inhibition (HI) Test .....	32
◆ Porcine Reproductive and Respiratory Syndrome (PRRS) Indirect Fluorescent Antibody (IFA) Test.....	33

*(continued on next page)*

◆ Pseudorabies (PR) Virus Neutralization Test .....	34
◆ Pseudorabies (PR) Virus Enzyme-Linked Immunosorbent Assay (ELISA) and Latex Agglutination (LA) Test .....	35
◆ Swine Influenza (SI) Hemagglutination-Inhibition (HI) Test.....	36
◆ Vesicular Stomatitis (VS) Virus (New Jersey and Indiana Serotypes) Complement-Fixation Test.....	37
◆ Vesicular Stomatitis (VS) Virus (New Jersey and Indiana Serotypes) Virus Neutralization Test.....	38

<i>Avian Influenza (AI) Virus Isolation, Subtyping, and Agar Gel Immunodiffusion</i> <span style="float: right;"><i>April 9 – 13, 2007</i></span>	
<b>Description</b>	This training will provide the participant(s) hands-on experience in the isolation, identification, and characterization of an avian influenza virus and in the detection of antibodies by the agar gel immunodiffusion test.
<b>Objective</b>	<p>Upon successful completion of this course, the student will be able to:</p> <ul style="list-style-type: none"> <li>• Demonstrate laboratory safety practices in handling avian influenza virus</li> <li>• Discuss important aspects of quality assurance related to the procedures used</li> <li>• Perform virus isolation using chicken embryos</li> <li>• Perform the hemagglutination test</li> <li>• Perform the hemagglutination-inhibition test</li> <li>• Perform the agar gel immunodiffusion test</li> <li>• Discuss pathogenicity criteria</li> <li>• Discuss and understand subtyping methods including hemagglutination-inhibition and neuraminidase-inhibition tests</li> </ul>
<b>Topics to be Covered</b>	<p>Laboratory sessions will include the following demonstrations and hands-on training:</p> <ul style="list-style-type: none"> <li>• Tissue selection and preparation for virus isolation</li> <li>• Antibiotic and media formulations</li> <li>• Embryo inoculation via allantoic sac route</li> <li>• Embryo candling and collection of allantoic fluid</li> <li>• Hemagglutination test</li> <li>• Hemagglutination-inhibition test for virus identification</li> <li>• Agar gel immunodiffusion test</li> <li>• Subtype (hemagglutination-inhibition and neuraminidase-inhibition tests) determination by determination</li> </ul>

*(continued on next page)*

	<p>Discussions will include:</p> <ul style="list-style-type: none"> <li>• Epidemiology of avian influenza</li> <li>• Good laboratory practices</li> <li>• Techniques to prevent laboratory contamination</li> <li>• Quality assurance</li> <li>• Trouble shooting</li> <li>• Test interpretations</li> <li>• Pathogenicity tests and interpretations</li> <li>• Reagent preparation</li> <li>• Subtyping procedure</li> </ul>
<b>Target Audience</b>	Technicians, microbiologists, and veterinarians who wish to improve current laboratory skills or who will actually perform the test in the laboratory. Class size is limited to 2.
<b>Time Requirements</b>	Training will be provided Monday through Friday. Trainee should be prepared to be in the laboratory for 5 full days.
<b>Restrictions</b>	The training will be conducted in a high security laboratory. Trainees will be required to change clothing to enter and shower to leave. Participants must sign an agreement not to go near or handle livestock or poultry during the training and for 5 days after completion of the training.
<b>Contact Person</b>	<p>For technical information:      Head, Avian Viruses Section Diagnostic Virology Laboratory (515) 663-7551</p> <p>For logistical information:      Training Office (515) 663-7300/7475</p>

<b><i>Bluetongue (BT) and Epizootic Hemorrhagic Disease (EHD)</i></b> <b><i>January 29 – February 2, 2007</i></b> <b><i>Virus Isolation</i></b> <b><i>Or As Scheduled</i></b>	
<b>Description</b>	This hands-on training allows the participants an opportunity to isolate and identify BT and EHD viruses from field specimens.
<b>Objective</b>	To enable participants to follow and perform procedures to isolate and identify BT and EHD.
<b>Topics to be Covered</b>	Overview of virus isolation techniques including: <ul style="list-style-type: none"> <li>• Processing of specimens</li> <li>• Preparation and inoculation of cell cultures</li> <li>• Preparation and inoculation of embryonating chicken eggs</li> <li>• Fluorescent antibody procedures</li> <li>• Serotyping procedures</li> </ul>
<b>Target Audience</b>	Laboratory personnel familiar with virus isolation techniques. Class size is limited to 2.
<b>Time Requirements</b>	5 days
<b>Restrictions</b>	The training will be conducted in a high-security laboratory. Trainees will be required to change clothing to enter and shower to leave. Participants must sign an agreement not to go near or handle livestock or poultry during the training and for 5 days after completion of the training.
<b>Contact Person</b>	For technical information:    Head, Equine and Ovine Viruses Section Diagnostic Virology Laboratory (515) 663-7551  For logistical information:    Training Office (515) 663-7300/7475

<i><b>Bovine/Porcine Virus Isolation Techniques</b></i>		<i><b>February 15 - 16, 2007</b></i> <i><b>September 10 - 14, 2007</b></i>
<b>Description</b>	This training will provide practical, hands-on experience in techniques used to isolate common bovine and/or porcine viral agents from tissues, swabs, and other diagnostic specimens.	
<b>Objective</b>	To learn procedures for the isolation of bovine and/or porcine viruses	
<b>Topics to be Covered</b>	An overview of techniques including: <ul style="list-style-type: none"> <li>• Tissue selection, preparation, and homogenization techniques</li> <li>• Cell culture preparation and inoculation</li> <li>• Observation of cultures for cytopathic effects</li> <li>• Procedures for blind passage</li> <li>• Identification strategies, including direct and indirect immunofluorescence assays, serum-virus neutralization, and electron microscopy</li> </ul>	
<b>Target Audience</b>	Technicians, microbiologists, and veterinarians who are performing or who wish to perform virus isolation in cell culture from bovine and/or porcine diagnostic specimens. Class size is limited to 2.	
<b>Time Requirements</b>	2 days or 5 days* <p>*Note: The general overview of basic virus isolation techniques for bovine or porcine viruses requires 5 days. Training for isolation techniques for one type of virus, e.g., porcine reproductive and respiratory syndrome (PRRS) virus isolation techniques, can be completed in 2 days.</p>	
<b>Restrictions</b>	The training will be conducted in a high-security laboratory. Trainees will be required to change clothing to enter and shower to leave. Participants must sign an agreement not to go near or handle livestock or poultry during the training and for 5 days after completion of the training.	
<b>Contact Person</b>	For technical information:      Head, Bovine & Porcine Viruses Section Diagnostic Virology Laboratory (515) 663-7551 <p>For logistical information:      Training Office (515) 663-7300/7475</p>	

<b><i>Equine Infectious Anemia (EIA) Agar Gel Immunodiffusion (AGID) and Enzyme-Linked Immunosorbent Assay (ELISA) Laboratory Methods</i></b>		<b><i>As Scheduled</i></b>
<b>Description</b>	This is a hands-on course that gives participants complete training in EIA AGID setup and interpretation as well as the opportunity to set up demonstrations on the currently approved ELISA systems.	
<b>Objective</b>	To provide trainees with the information and skills to set up and interpret EIA AGID reactions and earn certification to do USDA-approved testing.	
<b>Topics to be Covered</b>	Topics include: <ul style="list-style-type: none"> <li>• EIA testing and regulatory concerns</li> <li>• Status reports</li> <li>• Pouring, cutting, and inoculating immunodiffusion (ID) plates</li> <li>• Reading and interpretation of ID plates</li> <li>• Agar preparation</li> <li>• Setup and interpretation of EIA ELISA tests</li> </ul>	
<b>Target Audience</b>	Technicians, microbiologists, and/or veterinarians who want EIA testing certification. Class size is limited to 12.	
<b>Time Requirements</b>	1 ½ days	
<b>Purchasing Reagents to Take With You</b>	EIA reagents must be purchased from an approved manufacturer. Information on purchasing EIA reagents is provided with pre-course material sent to trainees. Participants desiring to hand-carry any other reagents with them after completion of the course must make arrangements prior to the course. See page 4 for instructions.	
<b>Nomination Procedure</b>	Requests for training must be co-signed by the applicant's State Veterinarian and Federal Veterinarian before sending to the Director's Office, National Veterinary Services Laboratories.	
<b>Contact Person</b>	For technical information:      Head, Equine & Ovine Viruses Section Diagnostic Virology Laboratory (515) 663-7551  For logistical information:      Training Office (515) 663-7300/7475	





<i>Flourescent Antibody (FA) Conjugate Production</i>		<i>April 2 – 6, 2007</i>
<b>Description</b>	Hands-on training to prepare an FA conjugate using flourescein isothiocyanate (FITC) dye. Serum antibody used in this course was produced against a viral agent, but the FA-labeling technique can also be applied to antiserum produced against other agents.	
<b>Objective</b>	To enable participants to conjugate and evaluate FITC-labeled antibody.	
<b>Topics to be Covered</b>	The production and evaluation of conjugate including: <ul style="list-style-type: none"> <li>• Discussion of antiserum production</li> <li>• Preparation of reagents used in procedure</li> <li>• SAS fraction of serum</li> <li>• Dialysis</li> <li>• Protein determination</li> <li>• Gel filtration with Sephadex</li> <li>• Evaluation of FA conjugates</li> </ul>	
<b>Target Audience</b>	Technicians, microbiologists, and/or veterinarians who want training in FA conjugate production. Restricted to 2 trainees.	
<b>Time Requirements</b>	5 days	
<b>Restrictions</b>	The training will be conducted in a high-security laboratory. Trainees will be required to change clothing to enter and shower to leave. Participants must sign an agreement not to go near or handle livestock or poultry during the training and for 5 days after completion of the training.	
<b>Contact Person</b>	For technical information:      Reagent Production Unit Diagnostic Virology Laboratory (515) 663-7551  For logistical information:      Training Office (515) 663-7300/7475	

<b><i>Hemagglutinating Encephalomyelitis Hemagglutination-Inhibition (HI) Test</i></b>		<b><i>April 4, 2007</i></b>
<b>Description</b>	Explanation of the complete procedure and hands-on practical experience will enable the trainee to perform the HI test for detection of antibodies against hemagglutinating encephalomyelitis virus (HEV).	
<b>Objective</b>	At the conclusion of the training, course participants will be able to perform the HI for detection of antibodies against HEV.	
<b>Topics to be Covered</b>	<p>Overview of test procedures including:</p> <ul style="list-style-type: none"> <li>• Propagation of virus stocks</li> <li>• Virus titration to determine virus concentration</li> <li>• Sample preparation and titration for determination of endpoint titer</li> <li>• Challenge virus dilution and preparation of back titrations</li> <li>• Reading and evaluation of test plates</li> <li>• Use of controls to monitor performance of the test</li> <li>• Reporting of test results</li> </ul>	
<b>Target Audience</b>	Laboratory personnel who wish to conduct testing to qualify animals for export or interstate shipment. Class size is limited to 6.	
<b>Time Requirements</b>	1 day	
<b>Restrictions</b>	The training will be conducted in a high-security laboratory. Trainees will be required to change clothing to enter and shower to leave. Participants must sign an agreement not to go near or handle livestock or poultry during the training and for 5 days after completion of the training.	
<b>Contact Person</b>	<p>For technical information:      Head, Bovine &amp; Porcine Viruses Section Diagnostic Virology Laboratory (515) 663-7551</p> <p>For logistical information:      Training Office (515) 663-7300/7475</p>	

<i>Newcastle Disease (ND) Virus Isolation and Serology</i>		<i>October 16 – 20, 2006</i>
<b>Description</b>	This training will provide hands-on experience enabling participants to process samples for isolation, identification, and characterization of the ND virus.	
<b>Objective</b>	<p>Upon successful completion of the course, the student will be able to:</p> <ul style="list-style-type: none"> <li>• Demonstrate laboratory safety practices in handling the ND virus</li> <li>• Discuss important aspects of quality assurance related to the procedures used</li> <li>• Perform virus isolation using chicken embryos</li> <li>• Perform the hemagglutination test</li> <li>• Perform the hemagglutination-inhibition test</li> <li>• Determine the mean death time(MDT) in embryos as a measure of pathogenicity</li> <li>• Discuss pathogenicity criteria</li> </ul>	
<b>Topics to be Covered</b>	<p>Laboratory sessions include the following demonstrations and hands-on training:</p> <ul style="list-style-type: none"> <li>• Selection and processing of tissue specimens</li> <li>• Antibiotic and media formulations</li> <li>• Embryo inoculation via allantoic sac route</li> <li>• Egg candling and collection of allantoic fluid</li> <li>• Hemagglutination test</li> <li>• Hemagglutination-inhibition test for virus identification</li> <li>• Hemagglutination-inhibition test for detection of antibodies</li> <li>• Determination of MDT</li> </ul> <p>Discussions include:</p> <ul style="list-style-type: none"> <li>• Epidemiology of ND</li> <li>• Laboratory Safety Practices</li> <li>• Techniques to prevent laboratory contamination</li> <li>• Quality assurance</li> <li>• Trouble shooting</li> <li>• Test interpretations</li> <li>• Pathogenicity tests and interpretations</li> <li>• Reagent production and preparation</li> </ul>	

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<b>Target Audience</b>	Technicians, microbiologists, and veterinarians who wish to improve current laboratory skills or who will actually perform the test in the laboratory. Class size limited to 2.
<b>Time Requirements</b>	Training will be provided Monday through Friday. Trainees should be prepared to be in the laboratory for 5 full days.
<b>Restrictions</b>	The training will be conducted in a high-security laboratory. Trainees will be required to change clothing to enter and shower to leave. Participants must sign an agreement not to go near or handle livestock or poultry during the training and for 5 days after completion of the training.
<b>Contact Person</b>	<p>For technical information:      Head, Avian Viruses Section Diagnostic Virology Laboratory (515) 663-7551</p> <p>For logistical information:      Training Office (515) 663-7300/7475</p>

<i>Porcine Parvovirus (PPV) Hemagglutination-Inhibition (HI) Test</i>		<i>May 3 – 4, 2007</i>
<b>Description</b>	Explanation of the complete procedure and hands-on practical experience will provide trainee the opportunity to perform the HI test for detection of antibodies against PPV.	
<b>Objective</b>	At the conclusion of the training, course participants will be able to perform the HI test for detection of antibodies against PPV.	
<b>Topics to be Covered</b>	An overview of the HI test including: <ul style="list-style-type: none"> <li>• Propagation of virus stocks</li> <li>• Virus titrations to determine virus concentration</li> <li>• Sample preparation and titration for determination of endpoint titer</li> <li>• Challenge virus dilution and preparation of back titrations</li> <li>• Reading and evaluation of test plates</li> <li>• Use controls to monitor performance of the test</li> <li>• Reporting of test results</li> </ul>	
<b>Target Audience</b>	Laboratory personnel desiring to learn and implement the HI test in order to offer this procedure to serologically diagnose PPV infection. Class size is limited to 6.	
<b>Time Requirements</b>	2 days	
<b>Restrictions</b>	The training will be conducted in a high-security laboratory. Trainees will be required to change clothing to enter and shower to leave. Participants must sign an agreement not to go near or handle livestock or poultry during the training and for 5 days after completion of the training.	
<b>Contact Person</b>	For technical information:      Head, Bovine & Porcine Viruses Section Diagnostic Virology Laboratory (515) 663-7551  For logistical information:      Training Office (515) 663-7300/7475	

<b><i>Porcine Reproductive and Respiratory Syndrome (PRRS) Indirect Flourescent Antibody (IFA) Test</i></b>		<b><i>April 18 – 19, 2007</i></b>
<b>Description</b>	This training will provide an explanation of the testing procedure and provide practical hands-on experience which will enable participants to conduct the IFA test for detection of antibodies against PRRS virus.	
<b>Objective</b>	To perform the IFA test for detection of antibodies against PRRS.	
<b>Topics to be Covered</b>	Overview of testing procedures including: <ul style="list-style-type: none"> <li>• Propagation of virus stocks</li> <li>• Virus titrations to determine virus concentration</li> <li>• Preparation of IFA slides</li> <li>• Sample preparation and titration for determination of endpoint titer</li> <li>• Reading and evaluation of slides</li> <li>• Use of controls to monitor performance of the test</li> <li>• Reporting of test results</li> </ul>	
<b>Target Audience</b>	Laboratory personnel who wish to conduct testing to qualify animals for export or interstate shipment and serologically diagnose PRRS virus infections. Class size is limited to 3.	
<b>Time Requirements</b>	2 days	
<b>Restrictions</b>	The training will be conducted in a high-security laboratory. Trainees will be required to change clothing to enter and shower to leave. Participants must sign an agreement not to go near or handle livestock or poultry during the training and for 5 days after completion of the training.	
<b>Contact Person</b>	For technical information:      Head, Bovine & Porcine Viruses Section Diagnostic Virology Laboratory (515) 663-7551  For logistical information:      Training Office (515) 663-7300/7475	

<i>Pseudorabies (PR) Virus Neutralization Test</i>		<i>On Request</i>
<b>Description</b>	This training will provide an explanation of the complete testing procedure and provide practical hands-on experience to enable the participants to conduct the virus neutralization test for detection of antibodies against PR virus.	
<b>Objective</b>	To perform the virus neutralization test for detection of antibodies against PR virus.	
<b>Topics to be Covered</b>	<p>Overview of virus neutralization testing procedures including</p> <ul style="list-style-type: none"> <li>• Propagation of virus stocks</li> <li>• Virus preparation and titration for determination of endpoint titer</li> <li>• Challenge virus dilution and preparation of back titrations</li> <li>• Cell culture methods</li> <li>• Reading and evaluation of test plates</li> <li>• Use of controls to monitor performance of the test</li> <li>• Reporting of the test results</li> </ul>	
<b>Target Audience</b>	Technicians, microbiologists, and/or veterinarians who wish to conduct testing to qualify animals for export or interstate shipment or for providing diagnostic assistance for disease diagnosis. Class size is limited to 6.	
<b>Time Requirements</b>	3 days	
<b>Restrictions</b>	The training will be conducted in a high-security laboratory. Trainees will be required to change clothing to enter and shower to leave. Participants must sign an agreement not to go near or handle livestock or poultry during the training and for 5 days after completion of the training.	
<b>Contact Person</b>	<p>For technical information:      Head, Bovine &amp; Porcine Viruses Section Diagnostic Virology Laboratory (515) 663-7551</p> <p>For logistical information:      Training Office (515) 663-7300/7475</p>	

<b><i>Pseudorabies (PR) Virus Enzyme-Linked Immunosorbent Assay (ELISA) and Latex Agglutination (LA) Test</i></b>		<b><i>On Request</i></b>
<b>Description</b>	This training will provide an explanation of the complete testing procedure and provide practical hands-on experience to enable the participants to conduct the latex agglutination test and enzyme-linked immunosorbent assay for detection of antibodies against PR virus.	
<b>Objective</b>	To perform the PR ELISA and LA test for detection of antibodies against PR virus.	
<b>Topics to be Covered</b>	Overview of ELISA and LA testing procedures.	
<b>Target Audience</b>	Technicians, microbiologists, and/or veterinarians who wish to conduct testing to qualify animals for export or interstate shipment or for providing diagnostic assistance for disease diagnosis. Class size is limited to 6.	
<b>Time Requirements</b>	2 days	
<b>Restrictions</b>	The training will be conducted in a high-security laboratory. Trainees will be required to change clothing to enter and shower to leave. Participants must sign an agreement not to go near or handle livestock or poultry during the training and for 5 days after completion of the training.	
<b>Contact Person</b>	<p>For technical information:      Head, Bovine &amp; Porcine Viruses Section Diagnostic Virology Laboratory (515) 663-7551</p> <p>For logistical information:      Training Office (515) 663-7300/7475</p>	



<i>Swine Influenza (SI) Hemagglutination-Inhibition (HI) Test</i>		<i>March 8 – 9, 2007</i>
<b>Description</b>	This training will provide an explanation of the testing procedure and provide practical hands-on experience which will enable participants to conduct the HI test for detection of antibodies against SI virus (H1N1, H3N2).	
<b>Objective</b>	To perform the HI test for detection of antibodies against SI virus.	
<b>Topics to be Covered</b>	<p>Overview of HI testing procedures including:</p> <ul style="list-style-type: none"> <li>• Propagation of virus stocks</li> <li>• Virus titrations to determine virus concentration</li> <li>• Sample preparation and titration for determination of endpoint titer</li> <li>• Challenge virus dilution and preparation of back titrations</li> <li>• Reading and evaluation of test plates</li> <li>• Use of controls to monitor performance of the test</li> <li>• Reporting of test results</li> <li>• Public health issues involved with these viruses</li> </ul>	
<b>Target Audience</b>	Laboratory personnel who wish to conduct testing to qualify animals for export or interstate shipment and serologically diagnose SI virus infections. Class size is limited to 6.	
<b>Time Requirements</b>	2 days	
<b>Restrictions</b>	The training will be conducted in a high-security laboratory. Trainees will be required to change clothing to enter and shower to leave. Participants must sign an agreement not to go near or handle livestock or poultry during the training and for 5 days after completion of the training.	
<b>Contact Person</b>	<p>For technical information:      Head, Bovine &amp; Porcine Viruses Section Diagnostic Virology Laboratory (515) 663-7551</p> <p>For logistical information:      Training Office (515) 663-7300/7475</p>	

<b><i>Vesicular Stomatitis (VS) Virus (New Jersey and Indiana Serotypes)</i></b> <b><i>April 16 – 17, 2007</i></b> <b><i>Complement-Fixation Test</i></b>	
<b>Description</b>	This training will provide an explanation of the testing procedure and provide practical hands-on experience which will enable participants to conduct the complement-fixation test for detection of antibodies against VS virus (New Jersey and Indiana serotypes).
<b>Objective</b>	To perform the complement-fixation test for detection of antibodies against VS virus (New Jersey and Indiana serotypes).
<b>Topics to be Covered</b>	<p>Overview of complement-fixation testing procedures including:</p> <ul style="list-style-type: none"> <li>• Preparation and titration of test results</li> <li>• Sample preparation and test procedures</li> <li>• Reading and evaluation of test plates</li> <li>• Use of controls to monitor performance of the test</li> <li>• Reporting of the test results</li> <li>• Public health issues involved with this virus</li> </ul>
<b>Target Audience</b>	Technicians, microbiologists, and/or veterinarians who wish to conduct testing to qualify animals for export or interstate shipment. Class size limited to 3.
<b>Time Requirements</b>	2 days
<b>Restrictions</b>	The training will be conducted in a high-security laboratory. Trainees will be required to change clothing to enter and shower to leave. Participants must sign an agreement not to go near or handle livestock or poultry during the training and for 5 days after completion of the training.
<b>Contact Person</b>	<p>For technical information:      Head, Bovine &amp; Porcine Viruses Section  Diagnostic Virology Laboratory  (515) 663-7551</p> <p>For logistical information:      Training Office (515) 663-7300/7475</p>

<b><i>Vesicular Stomatitis (VS) Virus (New Jersey and Indiana Serotypes)</i></b> <b><i>Virus Neutralization Test</i></b>		<b><i>April 18 – 20, 2007</i></b>
<b>Description</b>	This training will provide an explanation of the testing procedure and provide practical hands-on experience which will enable participants to conduct the virus neutralization test for detection of antibodies against VS virus (New Jersey and Indiana serotypes).	
<b>Objective</b>	To perform the virus neutralization test for detection of antibodies against VS virus (New Jersey and Indiana serotypes).	
<b>Topics to be Covered</b>	Overview of virus neutralization testing procedures including: <ul style="list-style-type: none"> <li>• Propagation of virus stock</li> <li>• Virus titrations to determine virus concentration</li> <li>• Sample preparation and titration for determination of endpoint titer</li> <li>• Challenge virus dilution and preparation of back titration</li> <li>• Cell culture methods</li> <li>• Reading and evaluation of test plates</li> <li>• Use of controls to monitor performance of the test</li> <li>• Reporting of the test results</li> <li>• Public health issues involved with this virus</li> </ul>	
<b>Target Audience</b>	Technicians, microbiologists, and/or veterinarians who wish to conduct testing to qualify animals for export or interstate shipment. Class size limited to 3.	
<b>Time Requirements</b>	3 days	
<b>Restrictions</b>	The training will be conducted in a high-security laboratory. Trainees will be required to change clothing to enter and shower to leave. Participants must sign an agreement not to go near or handle livestock or poultry during the training and for 5 days after completion of the training.	
<b>Contact Person</b>	For technical information:      Head, Bovine & Porcine Viruses Section Diagnostic Virology Laboratory (515) 663-7551  For logistical information:      Training Office (515) 663-7300/7475	



## **OVERVIEW OF THE PATHOLOGY LABORATORY (PL)**

The PL provides differential diagnostic studies of Foreign Animal Disease (FAD) and domestic animal diseases. The laboratory's clients and stakeholders include several Federal programs, various diagnostic laboratories, and other groups, both domestic and international.

This laboratory is the national reference center for confirmation and/or diagnosis of various VS program diseases (e.g., transmissible spongiform encephalopathies, bovine tuberculosis, screwworm myiasis, and cattle fever ticks). It is an international center for analytical services and provides pathology, clinical pathology, parasitology, entomology, and chemistry services.

### **General Pathology and Pathology Investigations Section**

- Histopathology Support for the Bovine Tuberculosis Eradication/Control Program
- Gross Pathology/Histopathology Support for Diagnosis of Foreign Animal Diseases and Enzootic Diseases
- Histopathology/Immunohistochemistry for Scrapie and Chronic Wasting Disease Diagnosis
- Surveillance Histopathology IHC for Bovine Spongiform Encephalopathy
- Gross Pathology/Histopathology Reference Support for State Diagnostic Laboratories
- Histological and Immunohistochemical Preparations

### **Chemistry and Analytical Services (CAS) Section**

- Chemical Identification and Quantitation of Program-related Agents
- Analysis of Pesticide Concentrations for APHIS Programs
- Chemical Analysis of Veterinary Biologics Products
- Standardization of Analytical Methodologies
- Coordination of Veterinary Services Disinfectant Issues
- Coordination of Comprehensive Diagnostic Cases

### **Parasitology and Clinical Pathology Team**

- Exotic and Domestic Parasite Identification (e.g., Ticks, Myiasis Flies, Mites, Hemoparasites)
- Center for National Tick Surveillance Program
- Hematology and Clinical Chemistry
- Fraudulent Blood Screening

### **Animal Resources Section**

- Animal Care, Handling, and Management
- Staff Members Have American Association for Laboratory Animal Science Certification
- Operation of Biosafety Level II and III Animal Housing Facilities
- Accredited by the American Association for Assessment and Accreditation of Laboratory Animal Care since 1994

## **COURSES OFFERED**

- ◆ Specialized training available upon request. Contact the Training Office, telephone (515) 663-7300/7475 or email: [NVSL.Training@aphis.usda.gov](mailto:NVSL.Training@aphis.usda.gov)



## OVERVIEW OF THE FOREIGN ANIMAL DISEASE DIAGNOSTIC LABORATORY (FADDL)

The FADDL is responsible for the diagnosis of animal diseases foreign to the United States by testing samples submitted from within and outside the United States. Tests are also conducted on imported animals and animal products for the presence of exotic animal disease agents.

### **Diagnostic Services Section**

- Diagnosis of Foreign Animal Diseases (FAD)
- Testing of Imported Animals for FAD
- Safety Testing of Imported Biological Materials
- Gamma Irradiation Sterilization of Biomaterials
- Histologic Studies on Diagnostic Cases
- Electron Microscopic Examination of Pathogen

### **Reagents and Vaccine Services Section**

- New Methods Evaluation and Implementation
- Production, Maintenance, and Distribution of Diagnostic Reagents
- Maintenance of North American Foot-and-Mouth (FMD) Vaccine Bank

## TRAINING OFFERED

Foreign Animal Diseases..... 44





Training in the diagnosis and recognition of diseases not present in the United States is offered at the Foreign Animal Disease Diagnostic Laboratory (FADDL) on a request basis. The primary areas of interest in the past have included:

1. Vesicular Disease Diagnosis      Detection of antibodies to foot-and-mouth disease virus (FMDV), vesicular stomatitis virus (VSV), vesicular exanthema of swine (VES), and swine vesicular disease virus (SVDV) by agarose gel immunodiffusion, virus neutralization, and/or ELISA.  
  
Detection of viral antigens of FMDV, VSV, VES, and SVDV by ELISA, complement-fixation, polymerase chain reaction (PCR), virus isolation (using tissue culture and/or live animal systems), and electron microscopy (EM).
2. Swine Disease Diagnosis      Detection of classical swine fever (CSF) (hog cholera) and African swine fever (ASF) virus by indirect fluorescent antibody (IFA) staining of cut tissue sections and/or virus isolation in tissue culture or live animals.  
  
Detection of CSF virus and ASF virus by avidin-biotin complex (ABC) staining and IFA staining of cut tissue sections and/or virus isolation in tissue culture or live animals.
3. African Horse Sickness      Detection of antibodies to African horse sickness (AHS) virus by ELISA, complement-fixation, virus neutralization, and IFA.
4. Rinderpest and Peste des Petits Ruminants (PPR)      Detection of antibodies to Rinderpest virus and PPR virus by virus neutralization and detection of virus by virus isolation in tissue culture.
5. Histopathology      Training in the recognition of important microscopic lesions present in tissues from animals infected with agents exotic to the United States.
6. Others      Training in the diagnosis of other foreign animal diseases can be arranged.

